THE UNIVERSITY OF NORTH CAROLINA SYSTEM

New Academic Degree Program Request for Preliminary Authorization

Institution University of North Carolina at Charlotte

Degree Program Title (e.g., M.A. in Biology) M.S. in Artificial Intelligence

Reviewed and Approved By (Provide Name and title only. No signature required in this section.)

Review	Name	Title
Chief Financial Officer	Richard Amon	Vice Chancellor for Business Affairs
Faculty Senate Chair (Or appropriate faculty body)	Xiaoxia Newton	Faculty Council President
Graduate Council (If applicable)	Concepcion Godev	Professor and Graduate Council Chair
Graduate/Undergraduate Dean (If applicable)	William Tolone	Dean of the Graduate School
Academic College/School Dean	Bojan Cukic	Dean College of Computing and Informatics
Department Head/Chair	Min Shin	Department Chair for Computer Science
Program Director/Coordinator	Harini Ramaprasad	CCI Associate Dean

New Academic Proposal Process

New academic programs are initiated and developed by faculty members. The Request for Preliminary Authorization must be reviewed and approved by the appropriate individuals listed above before submission to the UNC System Office for review.

Please provide a succinct, yet thorough response to each section. Obtain signatures from the Chancellor and Provost and submit the proposal via the PREP system to the UNC System Vice President for Academic Programs, Faculty, and Research, for review and approval by the UNC System Office. If the Request for Preliminary Authorization is approved, the institution may begin work on the formal Request to Establish a New Academic Degree Program.

NOTE: If an institution is requesting preliminary authorization for a degree program at a higher level than their current Carnegie Classification (e.g., a Master's institution proposing a doctoral degree), then a request for a mission review must first be submitted to the UNC Board of Governors Committee on Educational

Planning, Programs, and Policies, through the Senior Vice President for Academic Affairs. If approved by the Board, then the institution may proceed with the Request for Preliminary Authorization.

UNC Institution Name	University of North Carolina at Charlotte
Institutional Accreditor (e.g., SACSCOC)	SACSCOC
Joint Degree Program (Yes or No)? If so, list partner institution.	No
Degree Program Title (e.g., M.A. in Biology)	M.S. in Artificial Intelligence
CIP Code and CIP Title (May be found at National Center for Education Statistics)	11.0102 Artificial Intelligence
Require UNC Teacher Licensure Specialty Area Code (Yes or No). If yes, list suggested UNC Specialty Area Code(s).	No
Proposed Delivery Mode (campus, online, or site-based distance education). Add maximum % online, if applicable.	Campus
Will this program be offered by an outside provider such as an Online Program Manager (OPM) or Project Kitty Hawk (PKH)? If yes, list the provider.	No
Proposed Term to Enroll First Students (e.g., Fall 2023)	Fall 2026

I. Accreditor Liaison Statement: *(Provide a brief statement from the university accreditor liaison regarding whether the new program is or is not a substantive change.)*

The changes made have been evaluated and it is determined that they do constitute a substantive change.

II. Program Summary: (*Briefly describe the proposed program and summarize the overall rationale.*) Maximum of 1,000 words.

Include the following in your narrative:

a. How this program supports specific university and UNC System missions.
b. Collaborative opportunities with other UNC institutions as appropriate.
c. Ways in which the proposed program is distinct from others already offered in the UNC System. Information on other programs may be found on the UNC System website, and all similar

programs should be listed here (use the 4-digit CIP as a guide).

d. How does the program align with the UNC System and institutional strategic plan?

Supporting the Missions of UNC Charlotte and the UNC System

Establishing a Master of Science in Artificial Intelligence at UNC Charlotte aligns with the university's mission as a leading urban research institution with a substantial local-to-global impact. AI is a transformative force in multiple industries, and through accessible and affordable education, this program will prepare students to address real-world challenges with cutting-edge AI expertise.

The program supports the UNC System's mission, which emphasizes education, research, and public service for all North Carolinians. Labor market projections indicate a significant rise in AI-related job opportunities across North Carolina, particularly in industries such as healthcare, finance, and cybersecurity where AI is becoming an essential tool.

According to EAB, between February 2024 and January 2025, EAB identified **6,508 statewide AI-related job postings and 28,224 regional AI-related job postings**, demonstrating strong workforce demand. Notably, 33.68% of the statewide postings and 38.79% of the regional postings specifically seek candidates with a master's degree, highlighting the need for advanced AI education.[1]

By offering this program, UNC Charlotte will play a crucial role in the state's workforce development. Furthermore, the university has already made significant contributions to AI research, with advancements in AI and mixed reality in the **Human Centered Computing Lab**, and machine learning in the **CharMLab**, and in the **Center for Computational Intelligence to Predict Health & Environmental Risks (CIPHER)**. These research efforts position UNC Charlotte as a key player in AI innovation, with the opportunity for students to engage in research through the thesis option in the MS degree. UNC Charlotte's College of Computing and Informatics faculty boasts expertise in cutting-edge AI research, ensuring the graduate program is guided by leading scholars and practitioners in the field

Collaboration with Other NC Institutions

The program will also create new collaboration with other UNC institutions, fostering research and shared resources in AI innovation. UNC Charlotte's CCI Dean consulted Dr. Kaushik Roy, Department Chair of Computer Science at NC A&T University regarding their experience developing an undergraduate AI program, which at the time of this writing, has not been fully established yet. UNC Charlotte is also proposing a BS in AI program to be launched concurrently with the MS in AI. In addition to AI concentrations at other universities, these two fully-dedicated AI undergraduate programs—the only ones in the state—will serve as important pipelines for our MS program.

Distinction from Existing Programs in the UNC System

[1] EAB. (2025, February). Market pulsecheck for a bachelor's-level artificial intelligence program. See Appendix B for the full study.

- The proposed program will be the first and only Master's in AI in the UNC System.

Distinction from Existing Programs Across the Nation

According to iPeds Data Center (DOE)[2], 35 universities awarded an AI-specific master's degree (CIP code 11.0102) in 2023, highlighting strong market need, given the expected rapid growth for AI-related jobs. With less than 1,000 MS in AI degrees awarded in 2023, and all awarded outside of the UNC System[3], there is a clear market need, given the expected exponential growth for AI-related jobs. Compared to other MS in AI programs, UNC Charlotte offers affordable tuition for NC residents and an opportunity for students to select courses from a variety of cutting-edge AI course clusters, including, machine learning, robotics & decision-making, human-AI interactions, AI system design, and AI security. Additionally, we are supported by one of the largest computing colleges in the nation, giving us extensive experience in educating large numbers of students, as demonstrated by the large number of computing master's degrees awarded each year.[4]

Alignment with the UNC System's and UNC Charlotte's Strategic Plans

UNC System Strategic Plan Alignment Highlights

- **Student Success:** By incorporating real-world case studies, professionalism topics, and exploration of AI-related ethical topics into a program built on a foundation of strong theoretical and analytical skills, the program will ensure students graduate with competitive skills and job-ready expertise.
- **Affordability and Efficiency:** UNC Charlotte's already established commitment to affordability will extend to this program, ensuring cost-effective education while maintaining high-quality instruction.
- **Economic Impact and Community Engagement:** The Burtch Works' *2024 Data Science & AI Professionals Salary Report* found that "80% of all Data Science and AI professionals surveyed held an advanced degree. Education level has historically had a marked effect on salary," and "The proportion of AI professionals with a Master's and/or PhD as their highest degree earned is higher than Data Science professionals and is a statistically significant difference."[5] Offering an MS in AI will enhance the local economy by equipping professionals with advanced degrees, increasing their earning potential and meeting the growing demand for highly skilled AI talent in the workforce.

UNC Charlotte Strategic Plan Alignment Highlights

- **Transform Students' Lives Through Educational Opportunity and Excellence:** This program will provide students with cutting-edge AI knowledge gained through exploration of career-ready case studies and prioritizing practice with industry-used tools, preparing them for leadership roles in emerging industries.
- **Power the Future Through Inquiry, Research, and Creative Discovery:** The program will promote AI research, including a thesis option, that will support AI research, enabling faculty and students to engage

[2] IPEDS Data, https://nces.ed.gov/ipeds/use-the-data, Filter includes: US, Title IV, degree-granting institutions, CIP code 11.0102, year: 2023.

[3] Duke University was the only North Carolina university to award a total of 11 MS in AI degrees in 2023.

[4] MS degrees awarded in the past 5 years through the College of Computing and Informatics: 1,117 MS in CS, 222 MS in Cybersecurity, 341 MS in Information Technology, 86 MS in Bioinformatics, and 422 MS Data Science & Business Analytics

[5] Burtch Works. (2024). Data Science & AI Professionals Salary Report (p. 19). Retrieved from https://www.burtchworks.com/salary-2024.

in pioneering discoveries that advance AI applications in areas such as: AI and mixed reality, natural language processing, computer vision, cybersecurity, and computer intelligence for predictive health and environmental risk analysis.

- **Drive Progress for North Carolina and Beyond:** As with the NC System's Economic Impact and Community Engagement goals, the AI program will answer UNC Charlotte's call to drive progress in North Carolina and beyond. Lightcast's *The Speed of Skill Change* report found that, "Tech jobs have been notably disrupted by AI skills, including in data roles (like Data Scientists and Analytics Managers) and programming roles (like Software Developers)."[6] As AI rapidly reshapes the workforce, the demand for professionals to pursue advanced degrees in emerging fields like Artificial Intelligence has become more urgent than ever.

III. Student Demand*: (Provide evidence of student enrollment demand, including external estimates. Discuss the extent to which students will be drawn from a pool of students not previously served by the institution. Maximum length 1,000 words.)*

Current Program Interest

UNC Charlotte's **existing AI-related programs and courses** demonstrate strong and sustained student interest:

- **M. S. Computer Science with AI, Robotics, and Gaming Concentration:** CCI has over 600 students in the MS in CS program and around 100 students enrolled in the "AI, Robotics, and Gaming" concentration. This reflects significant demand for AI-related studies within the Computer Science major.
- **AI-Related Courses:**
    - Seven AI-focused courses recently offered: *Natural Language Processing (Fall)*, *Introduction to Artificial Intelligence (Fall & Spring)*, *Introduction to Machine Learning (Fall & Spring)*, and *Computer Vision (Spring), Intelligent Robotics (Spring), Mobile Robotics (Fall), and Special Topics: AI Literacy (Intermittently)*.
    - **Fall Enrollment:** 323 students across three of the four fall courses.
    - **Spring Enrollment:** 333 students currently enrolled in three of the four spring courses, demonstrating continued demand.

This consistent enrollment across multiple semesters highlights a **clear and growing interest in AI topics**. The sustained demand supports the **viability of a dedicated MS in AI program**, allowing students to develop deeper expertise beyond an AI concentration.

Future Program Interest

AI's growing relevance across industries makes it an attractive field for students who may not have previously considered a technical degree, broadening the institution's reach. Unlike traditional computing programs, a MS in AI has the potential to attract working adults with undergraduate degrees, or relevant work experience,

[6] Lightcast. (2024). *The Speed of Skill Change*. Retrieved February 2025, from https://lightcast.io/resources/research/speed-of-skill-change.

looking to **upskill** in AI applications relevant to their careers. Our research indicates that UNC Charlotte's AI programs are already drawing **older students**, particularly in the **31-35 age bracket**, as seen in the rapid growth of our AI-focused graduate certificate (see chart in section V, *Societal and Labor Market Demand*).

Burtch Works' 2024 *Data Science & AI Professionals Salary Report* found that "mid-career individuals from industry are going back and getting higher education degrees to further differentiate their skill set in a competitive market."[7] Similarly, EAB's research found that no statewide institutions and only one regional institution have awarded an undergraduate AI degree, leaving many with undergraduate degrees, even in computer science, without foundational AI education—making a graduate AI degree essential for catching up to market demands.[8] The lack of educational opportunities in AI specifically has caused many individuals to turn to private learning and self-directed courses[9] to fill this gap. As mentioned above, Lightcast's The Speed of Skill Change report found that, "Tech jobs have been notably disrupted by AI skills, including in data roles (like Data Scientists, Analytics Managers, and Data Engineers) and programming roles (like Computer Scientists and Software Developers)."[10] UNC Charlotte, through CCI, intends to fill that undergraduate gap and complete the educational lifecycle by establishing this MS degree.

With increasing market demand for AI expertise, a largely untapped student population seeking career advancement, and limited degree offerings in North Carolina, UNC Charlotte is well-positioned to take the lead in AI education and workforce development.

IV. Access, Affordability, and Student Success: (*Provide an analysis of the impact of the program on student access and affordability. Maximum length 1,200 words. Include information from College Scorecard. May also include census postsecondary outcomes data, etc.)*

a. Analysis of the impact of the proposed program on student access, including key metrics identified in the UNC System Strategic Plan and statewide initiatives (such as myFutureNC).
b. Analysis of student debt levels for similar programs and programs at the same academic level at the institution.
c. Provide an analysis of indebtedness, repayment, and relationship to potential earnings.

We expect that the graduates of the proposed program will also benefit from a favorable debt-to-earning ratio and will quickly benefit financially from their participation in the program. The U.S. Department of Education College Scorecard[11] provides data for institutions that are comparable to UNC Charlotte. Of our established 12 peer institutions, only two awarded Master's degrees in CIP 11.0102 during the most recent reporting year: San

[7] Burtch Works. (2024). Data Science & AI Professionals Salary Report (p. 19). Retrieved from https://www.burtchworks.com/salary-2024.

[8] EAB. (2025, February). Market pulsecheck for a bachelor's-level artificial intelligence program. See Appendix B for the full study.

[9] Burtch Works. (2024). Data Science & AI Professionals Salary Report (p. 19). Retrieved from https://www.burtchworks.com/salary-2024.

[10] Lightcast. (2024). *The Speed of Skill Change*. Retrieved February 2025, from https://lightcast.io/resources/research/speed-of-skill-change.

[11] https://collegescorecard.ed.gov/

Diego State University and Florida Atlantic University. The remaining CIP 11.0102 MS-awarding institutions in the following tables were selected based on comparable enrollment.

Institution Comparison Selection

Institution	Offers MS in CIP 11.0102, awarded in 2023	Tuition + fees In-state, graduate	Tuition + fees Out-of-state, graduate	Total undergraduate enrollment	Total graduate enrollment
University of San Diego	Yes	$29,328	$29,328	5,726	3,384
University of Pittsburgh-Pittsburgh Campus	Yes	$27,064	$45,034	25,171	9,354
Kent State University at Kent	Yes	$12,483	$23,352	20,485	5,621
University of North Carolina at Charlotte	Proposed	$7,869	$22,438	23,981	6,317
Florida Atlantic University	Yes	$6,693	$18,482	24,614	6,176

Program awards, tuition, and enrollment all based on the National Center for Education Statistics iPeds **AY 2023** data[12]

Indebtedness, repayment, and relationship to potential earnings[13]

Institution	Average Annual Cost	Median Total Debt After Graduation	Typical Monthly Loan Payment	Median Earnings	Median Program Earnings
University of San Diego	$29,725	$22,940	$243	$86,522	
University of Pittsburgh-Pittsburgh Campus	$29,187	$24,250	$257	$66,125	
Kent State University at Kent	$18,340	$24,500	$260	$45,388	
University of North Carolina at Charlotte	$15,018	$21,500	$228	$57,289	
MS in Comp Sci*		$2k - $25k**			$111k***
MS in Cybersecurity*		$6k - $24k**			$90k***
MS in IT*		$4k - $28k**			$112k***
Florida Atlantic University	$8,636	$17,236	$183	$56,746	

All earning and debt information from U.S. Department of Education's College Scorecard, unless otherwise indicated

* Information on specific program-based student debt provided by UNC Charlotte's Institutional Research

** Avg debt of all students in program vs avg debt of graduates with debt

*** Data from Lightcast alumni report. Note: MSCyber only has 5-yr earnings data, all others have 10-yr earnings

[12] https://nces.ed.gov/ipeds/use-the-data

[13] Average Annual Cost- The average annual net price that a student who receives federal financial aid pays to cover expenses (e.g., tuition, living expenses) to attend a school. Median Total Debt After Graduation- The median cumulative federal debt of undergraduate borrowers who graduated. Monthly Student Loan Payment - The median monthly loan payment for student borrowers who completed, based only on federal loan debt originated at the school awarding the credential, if it were repaid over 10 years at a 4.99% interest rate. Median Earnings - The median annual earnings of individuals that received federal student aid and began college at this institution 10 years ago, regardless of their completion status. Median Program Earnings - The average of the estimated wage, 10 years post graduation (MSCyber is newer with only 5 yrs), for each of our selected alumni, based on the median wage for their occupation in their county, adjusted for age and degree level.

Expected Earnings: According to the *Burtch Works 2024 Data Science & AI Professionals Salary Report*[14], the average entry-level AI professional (non-manager) earned $117K in 2024, up from $110K in 2023. While the Bureau of Labor Statistics does not yet track AI-specific salaries, Burtch Works's data aligns with BLS figures for Computing Professional - Database Administrators and Architects and is slightly lower than the $145K median salary for MS-level professionals in Computer and Information Research Science (2023 National Employment Matrix code: 15-1221), an AI-related occupation with an extremely high 26% projected 10-year growth rate.

Cost: Educational expense compared to earnings across all programs is favorable at UNC Charlotte compared to our peer institutions. Compared to our most expensive peer institution, University of San Diego, our in-state tuition is 75% less expensive, and 25% less expensive for out-of-state students with a corresponding 33% reduction in median earnings. Compared to Kent State University at Kent, our in-state tuition is 17% cheaper and our out-of-state tuition is 13% cheaper, while delivering 26% higher median earnings.

Ability to Repay: According to the DOE's College Scorecard, the typical yearly loan payment for a UNC Charlotte graduate is $2,736. With an estimated annual salary of $117k in AI professions, this corresponds to an average debt-to-earning ratio of 2.3%. While our current MS in Information Technology degree students can incur debt up to $7k higher than the UNC Charlotte average, the earning power of the degree is nearly $55k more than the UNC Charlotte average salary. Given the similar, or higher, earning power of an AI MS degree compared to our MS in Information Technology graduates and an assumed similar debt burden, we expect a comparable debt-to-earnings ratio.

Student Success: Our UNC Charlotte College of Computing and Informatics students graduate and graduate on time. Among our 2022 cohorts, two-year completion rates were 92.6% for MS in Computer Science, 96.2% for MS in Cybersecurity, and 90.9% for MS in Information Technology. These high completion rates demonstrate that our computing-related programs provide real value for students who invest their time and money. Our success in guiding students to completion makes us a reliable choice to launch a high-quality MS in Artificial Intelligence.

The MS in Artificial Intelligence degree program will offer a strong return on investment (ROI) as graduates in tech fields—particularly emerging technologies—experience significant financial benefits. According to the report, *Measuring the ROI of Degrees in the UNC System:*[15] UNC system graduates, on average, break even on their educational investments in less than 10 years (p. 8). Notably, computing degrees rank among the top 30% of high-ROI earning graduate programs of study, further reinforcing the strong financial benefits of an advanced degree in Artificial Intelligence.

With strong job growth in AI-related fields and proven economic benefits for UNC system graduates, the MS in Artificial Intelligence will provide students with a high-value, future-proof education that enhances economic mobility and financial stability.

[14] Burtch Works. (2024). Data Science & AI Professionals Salary Report (p. 19). Retrieved from https://www.burtchworks.com/salary-2024.

[15] Burning Glass Institute. *Measuring the ROI of Degrees in the UNC System*. Accessed February 28, 2025. https://www.burningglassinstitute.org/research/measuring-the-roi-of-degrees-in-the-unc-system.

V. Societal and Labor Market Demand: *(Provide evidence of societal demand and employability of graduates from each of the following source types. Must include external estimates. Maximum length 1,000 words)*

a. Labor market information (projections, job posting analyses, and wages)
   i. Specific to North Carolina (such as ncworks.gov, nctower.com, or outside vendors such as Burning Glass).
   ii. Available from national occupational and industry projections (such as the U.S. Bureau of Labor Statistics).

b. Projections from professional associations or industry reports (including analysis

c. Other (alumni surveys, insights from existing programs, etc.)

North Carolina Job Prospects

A search for Artificial Intelligence-related job postings on NCWorks.gov[16] reveals a high demand for AI professionals both statewide and in the Charlotte region.

- **Statewide**: Over **2,600 AI-related job listings** across various industries.
- **Charlotte**: More than **1,000 job openings**, demonstrating a **strong local demand**.
- **Top Employers in Charlotte**:
  - **Deloitte** – 142 listings
  - **Innova Solutions** – 23 listings
  - **Accenture** – 22 listings
  - **Truist Bank** – 22 listings
  - **Westinghouse Electric Company, LLC** – 22 listings

These numbers underscore the growing need for AI talent in our region, making a MS in Artificial Intelligence a strategic addition to our university's offerings. Graduates from this program will be well-positioned for careers in AI, data science, and machine learning across multiple sectors, including finance, consulting, technology, and energy.

Industry Growth, National

The AI job market is expanding rapidly, reinforcing the need for dedicated AI education:

- **Lightcast (2024):** "Generative AI job postings have increased **15,625%** from 2021 to 2024," signaling an unprecedented rise in AI-driven roles.
- **U.S. Bureau of Labor Statistics (November 2024):**
  - **Software development** demand is rising due to AI integration.
  - **Data scientists and machine learning engineers** are becoming critical as AI adoption grows.

[16] NCWorks.gov. (2025, February 24). *Job search results for "Artificial Intelligence".* Retrieved from https://www.ncworks.gov

- **AI skills** are now essential in cybersecurity**, IT infrastructure, and digital transformation**.
- **Healthcare and finance** are experiencing a surge in AI-driven automation and innovation.

With AI reshaping industries and driving job market growth, **a dedicated MS in AI program** at UNC Charlotte will equip students with the specialized skills needed to meet evolving workforce demands.

Existing Program Insights

Recent enrollment data from UNC Charlotte's AI-related programs indicate a rising demand for AI and machine learning topics, reflecting growing student interest in this field. Since its introduction in 2021, enrollment in the graduate certificate in Applied Artificial Intelligence has increased over six-fold, with the largest growth among students aged 31-35 and exclusively domestic students.

Existing Student Interest

Enrollments	**Fall 2020**	**Fall 2021**	**Fall 2022**	**Fall 2023**	**Fall 2024**	**Growth %**
Applied Artificial Intelligence, Graduate Certificate *Representing subject interest from domestic, working adult students*	NA	3	9	16	20	567%
BS in Computer Science, AI, Robotics, & Gaming concentration *Pipeline possibility*	268	260	263	286	340	27%
MS in Computer Science, AI, Robotics, & Gaming concentration *Existing student interest in similar program*	79	93	71	72	96	22%

Lightcast's report, *The Speed of Skill Change*, notes that "tech jobs have been notably disrupted by AI skills, including in data roles (like Data Scientists, Analytics Managers, and Data Engineers) [and] programming roles (like Computer Scientists and Software Developers)."[17] This disruption signals that a concentration within a Data Science or Computer Science graduate degree is no longer sufficient; instead, a fully established degree pathway is required to meet evolving market needs.

This sustained enrollment growth highlights a clear and increasing demand for AI education. Establishing a dedicated MS in AI will provide students with a structured pathway to develop expertise in this critical field, ensuring UNC Charlotte continues to meet the evolving educational needs of its students.

VI. Costs, Funding, and Budget (*Maximum length 1,200 words)*

Adding a new degree program will cost the institution some amount of money and will potentially generate new revenues. Calculating the costs and identifying the funding sources associated with

[17] Lightcast. (2024). *The Speed of Skill Change*. Retrieved February 2025, from https://lightcast.io/resources/research/speed-of-skill-change.

implementation of a new program requires several institutional offices (e.g., academic affairs, finance, institutional research, enrollment management) to collaborate to present an accurate estimate.

a. Complete and attach the *UNC System Academic Program Planning Financial Worksheet* showing all costs required and revenues generated for each of the first five years of the program. Provide a budget narrative for each year addressing the following:
    i. UNC Academic Program Costs
    Faculty costs include all faculty assigned to the proposed program, including faculty serving as program directors, coordinators, department chairs, etc. funded in the 101 instructional budget code. If an existing faculty member is reassigned to the program, the salary is reflected as a reallocated cost. New faculty salaries need to be competitive for the discipline, and figures should include all applicable fringe (e.g., retirement, medical). If the proposed program will hire new faculty, it is a new cost.

    Graduate Assistant costs are identified either as new or reallocated, as appropriate, and should include all stipends, tuition remission, and benefits, as applicable.

    EHRA Non-Faculty positions include non-instructional academic support costs directly associated with running the program, including amounts associated with the Dean's office, research support, etc. This should include salaries and all applicable fringe.
    SHRA Non-Faculty positions includes all positions specific costs associated with the new program. This includes the additional staff needed to organize applications, prepare for the proposed program, and for general administration of the proposed program. New staff or purchases of new equipment should be adequate to support the stated goals and enrollments for the proposed program. Other program costs identified in the proposal should be realistic.

The proposed MS in Artificial Intelligence program curriculum takes advantage of existing computer science courses and labs that are already offered as a part of our MS in Computer Science. Nine new courses will be developed as new and distinct from the MS in Computer Science with a concentration in Artificial Intelligence, Robotics, and Gaming. While students may pursue a source of study closer to the MS in Computer Science, they are able to pursue a plan of study that is up to 70% different from the MS in Computer Science. As a result, new faculty lines are requested primarily for new course development and increased student enrollment, but no new lab equipment, or new facilities are requested for the initial program offering.

The forecasted enrollment growth, assuming that most MS students take full-time workload (9 credit hours per semester), with 9 brand new courses in MS AI program, will increase faculty teaching load. To efficiently handle the increased load, 2 new tenure track faculty are requested every other year (Year 1, Year 3, Year 5), assuming that class sizes vary between 30 and 75. Typical teaching load for research-active faculty members in the College of Computing and Informatics is 3 course sections per year. These assumptions, depicted in the table below, bring the total request for new tenure track faculty to 6 by the end of Year 5. Outstanding sections will be taught by adjunct faculty. The increased enrollment will also necessitate additional Teaching Assistants (TAs), starting with

6 TAs (1 TA per course section) in Year 1 and growing to a total of 33 TAs by Year 5. 30 TAs are requested to be MS students and 3 would be PhD students. Most TAs for this program will be MS students, with PhD TAs assigned to assist with key courses with substantial needs to support AI projects. The projected number of TAs needed each year is outlined in the table below.

	Year 1	Year 2	Year 3	Year 4	Year 5
Student Enrollment	28	61	94	147	200
Tenure Track Faculty	2	2	4	4	6
Adjunct Faculty	2	2	2	2	2
MS TAs	5	10	15	23	30
PhD TAs	1	1	2	2	3

In addition to faculty and TAs, the program will require one dedicated Student Advisor and ½ FTE Student Services Specialist. Lastly, program administration will require a ½ FTE month stipend for the Program Director. Minor expenses related to supplies, materials, and student scholarships are included. Lastly, an overhead of 50% is budgeted to pay for Library services, Office of Assessment and Accreditation, Human Resources, Information Technology, utilities, facilities upkeep, classroom renovations, etc., all of which is detailed in the attached Academic Program Planning Financial Worksheet, Appendix A.

In summary, the total estimated new costs of the program are just under $7.7M over the initial five years, as detailed in the attached Academic Program Planning Financial Worksheet, Appendix A.

ii. UNC Academic Program Revenues

Funding sources may include enrollment growth formula funding, other state appropriation, regular tuition, tuition differential, general fees, special fees, reallocation of existing resources, federal funding, and other funding (such as awarded grants or gifts). The total projected revenue from the above categories should allow the proposed program to become self-sufficient within five years.

When estimating funding for new programs, institutions should take into account that students switching programs do not generate additional enrollment growth formula funds. For example, if a program projects enrollment of 20 students, but 12 of them switched into the program from an existing program at the institution, then only 8 of the students would generate additional formula funding.

Reallocation of Existing Resources includes the salary of faculty reassigned who may be partially or wholly reallocated to the new program. Explain how the current teaching

obligations of those faculty are reallocated and include any faculty replacement costs as program costs in the budget. If substantial funds are reallocated, explain how existing undergraduate and graduate programs will be affected.

Federal Funding (In-hand only) refers to federal monies from grants or other sources currently in hand. Do not include federal funding sought but not secured. If anticipated federal funding is obtained, at that time it can be substituted for funds designated in other funding categories. Make note within the text of the proposal of any anticipated federal funding. Provide evidence of sustainability after federal funds have been exhausted.

Our analysis predicts a total enrollment of 200 students in Year 5, with less than 10 estimated students originating from our existing programs. Using current rates, the total revenue from tuition and fees over five years is computed as $19.8M, as detailed in the attached Academic Program Planning Financial Worksheet, Appendix A. As the program grows, major fees and tuition increments will be used to support teaching, student services, and recruiting and outreach efforts. The tuition and appropriation revenues are determined at an institutional level. The numbers reflected may or may not reflect an actual change in the university budget.

b. Based on the institution's estimate of available existing resources or expected non-state financial resources that will support the proposed program (e.g., federal support, private sources, tuition revenue, etc.), please describe the following:

i. How does the institution budget and allocate enrollment growth revenues? Is this program expected to generate new enrollment growth for the institution? If so, how will funds be allocated to the proposed program or be used to further other institutional priorities?

The proposed program is expected to generate new enrollment growth for UNC Charlotte. Increases in enrollment as well as Student Credit Hours (SCH) are reviewed by the Dean's office and examined within the context of the UNC System Office funding formula and University priorities when determining allocation of enrollment growth funds and general tuition and fees. Funds received at the department level will be used to support teaching, student services, and recruiting and outreach in proportion to the enrollment growth.

ii. Will the institution seek other additional state appropriations (both one-time and recurring) to implement and sustain the proposed program? If so, please elaborate.

No.

iii. Will the institution require differential tuition supplements or program-specific fees? If so, please elaborate.

1. State the amount of tuition differential or program-specific fees that will be requested.
2. Describe specifically how the campus will spend the revenues generated.
3. Describe the anticipated impact of the tuition differential or program-specific fee are expected to impact student access.

The major fee currently in place in the College of Computing and Informatics is $225 per year and the tuition increment is $4800 per year[18]. We will request equivalent fees and tuition increments for this new program. We will invest this generated revenue to support student success initiatives.

c. Provide a description of how the program can be implemented and sustained If enrollment increase funding, differential tuition, or other state appropriations noted in the budget templates are not forthcoming.

Program expansion would be slowed in the absence of enrollment growth funding to fully support the anticipated demand.

d. If this is an online program offered in partnership with an OPM, describe the nature of the relationship, length of contract, funding model (e.g., revenue share, fee for service), and plans for sustainability beyond the initial contract period.

N/A

VII. For Research Doctoral Programs Only:

Describe the following (maximum length 1,000 words):

a. The research and scholarly infrastructure in place (including faculty) to support the proposed program.
b. Any aspects of financing the proposed new program not included in the above section.
c. State the number, amount, and source of proposed graduate student stipends and related tuition benefits that will be required to initiate the program.

N/A

VIII. For Professional Practice Doctoral Programs Only:

Describe the following (maximum length 1,000 words):

a. Discussion of external requirements, including professional licensure or accreditation requirements related to the proposed program. If the program is designed or will be marketed to lead to professional licensure, which state(s) has the institution determined the program meets professional licensure requirements for?
b. The academic and professional infrastructure in place (including faculty) to support the proposed program.
c. Any aspects of financing the proposed new program not included in the above section.
d. State the number and source of required clinical/practical placements, if applicable. Determine whether it is the students' or the institution's responsibility to secure clinical/practical placements and discuss how that expectation will be communicated to students and prospective students.

[18] https://ninercentral.charlotte.edu/wp-content/uploads/sites/803/2024/07/Graduate_MainCampus_2425.pdf

Describe how the institution will ensure that proposed clinical/practical sites are appropriate.

N/A

Appendices:

A: UNC System Academic Program Planning Financial Worksheet

B: EAB Market Insights Report

IX. Contact: (List the names, titles, e-mail addresses and telephone numbers of the person(s) responsible for planning the proposed program.)

Position Title	Name	E-mail Address	Telephone
Dean, College of Computing and Informatics	Bojan Cukic	bcukic@charlotte.edu	704-687-8422
Chair, Department of Computer Science	Min Shin	mcshin@charlotte.edu	704-687-8578
Associate Dean for Undergraduate Programs and Student Success, College of Computing and Informatics	Harini Ramaprasad	hramapra@charlotte.edu	704-687-1737
Director of Assessment, Planning, and Accreditation	Colleen Karnas-Haines	ckarnash@charlotte.edu	704-687-8370

Signatures. This Request for Preliminary Authorization has been reviewed and approved by the appropriate institutional committees and authorities and has my support.

Position Title	Signature	Date
Chancellor	DocuSigned by: Sharon Gaber 2FF1496738C7414...	04/16/2025 | 10:07 AM EDT
Provost	DocuSigned by: Jennifer Troyer CB79653C3A82433...	04/15/2025 | 11:11 AM EDT

(Only complete below for partner institution if this is a joint degree program proposal)

Position Title	Signature	Date
Chancellor		
Provost		

	Current Program Sources (if applicable)	Rate	Year 0 (Start Up)	1st Year	2nd year	3rd Year	4th Year	5th Year	TOTALS
1	General Fund Appropriation								$ -
2	NC Promise Appropriation								$ -
3	*Resident Enrollment (FTE)*			5	5				
4	Regular Resident Tuition (Annual Rate)	$ 4,841	$ -	$ 24,205	$ 24,205	$ -	$ -	$ -	$ 48,410
5	*Nonresident Enrollment (FTE)*			3	3				
6	Regular Nonresident Tuition (Annual Rate)	$ 20,627	$ -	$ 61,881	$ 61,881	$ -	$ -	$ -	$ 123,762
7	Tuition Differential (Annual Rate)	$ 15,786	$ -	$ 126,288	$ 126,288	$ -	$ -	$ -	$ 252,576
8	Special Fees	$ 3,285	$ -	$ 26,280	$ 26,280	$ -	$ -	$ -	$ 52,560
9	External Funding (In-Hand Only)								$ -
10	Other Funding (Identify)								$ -
11	**Total Current Sources**		$ -	$ 238,654	$ 238,654	$ -	$ -	$ -	$ 477,308
	Proposed New Program Sources								
12	*Incremental Resident SCH*			234	630	1,116	1,728	2,340	6,048
13	Enrollment Funding Appropriation	$ 579	$ -	$ -	$ 67,743	$ 250,128	$ 505,467	$ 823,338	$ 1,646,676
14	*Resident Enrollment (FTE)*			13	35	62	96	130	$ 336
15	Regular Resident Tuition (Annual Rate)	$ 4,841	$ -	$ 62,933	$ 169,435	$ 300,142	$ 464,736	$ 629,330	$ 1,626,576
16	NC Promise Appropriation (Resident)		$ -	$ -	$ -	$ -	$ -	$ -	$ -
17	*Nonresident Enrollment (FTE)*			7	18	32	51	70	$ 178
18	Regular Nonresident Tuition (Annual Rate)	$ 20,627	$ -	$ 144,389	$ 371,286	$ 660,064	$ 1,051,977	$ 1,443,890	$ 3,671,606
19	NC Promise Appropriation (Nonresident)		$ -	$ -	$ -	$ -	$ -	$ -	$ -
20	Tuition Differential (Annual Rate)	$ 15,786	$ -	$ 315,720	$ 836,658	$ 1,483,884	$ 2,320,542	$ 3,157,200	$ 8,114,004
21	Special Fees	$ 3,285	$ -	$ 65,700	$ 174,105	$ 308,790	$ 482,895	$ 657,000	$ 1,688,490
22	External Funding (In-Hand Only)								$ -
23	Other Funding (Identify)-SBTI + major fees	5025		100,500	266,325	472,350	738,675	1,005,000	2,582,850
24	**Total New Sources**		$ -	$ 689,242	$ 1,885,552	$ 3,475,358	$ 5,564,292	$ 7,715,758	$ 19,330,202
25	**Total Proposed Program Sources**		$ -	$ 927,896	$ 2,124,206	$ 3,475,358	$ 5,564,292	$ 7,715,758	$ 19,807,510

Comments

Chief Financial Officer

Name Richard Amon

Date 04/15/2025 | 2:53 PM EDT

Signature

X DocuSigned by: Richard Amon 03B88EFF44BD4C5...

		Year 0 (Start Up)	1st Year	2nd year	3rd Year	4th Year	5th Year	TOTALS
	Current Program Uses (if applicable)							
1	Tenure/Tenure-Track Faculty							$ -
2	Non Tenure-Track Faculty							$ -
3	Graduate Student Support							$ -
4	Non-Faculty Positions							$ -
5	Student Support (Scholarships)							$ -
6	Libraries							$ -
7	Supplies and Materials							$ -
8	Travel, Communications, and Fixed Charges							$ -
9	Equipment and Technology							$ -
10	Facility Repair and Renovation							$ -
11	Other (Identify)							$ -
12	**Total Current Uses**	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Proposed New Program Uses							
13	Tenure/Tenure-Track Faculty	-	332,376	332,376	664,752	664,752	997,128	$ **2,991,384**
14	Non Tenure-Track Faculty	-						$ -
15	Graduate Student Support	-	103,245	163,245	266,490	362,490	489,735	$ **1,385,205**
16	Non-Faculty Positions	-	114,764	114,764	114,764	114,764	114,764	$ **573,820**
17	Student Support (Scholarships)	-						$ -
18	Libraries	-						$ -
19	Supplies and Materials	-	2,000	2,000	2,000	2,000	2,000	$ **10,000**
20	Travel, Communications, and Fixed Charges	-						$ -
21	Equipment and Technology	-	5,000	5,000	5,000	5,000	5,000	$ **25,000**
22	Facility Repair and Renovation	-						$ -
23	Facility New Construction or Expansion	-						$ -
24	Other (Identify)- Stipend for adjunct & program direct	-	24,222	24,222	24,222	24,222	24,222	$ **121,111**
25	**Total New Uses**	$ -	$ **581,607**	$ **641,607**	$ **1,077,228**	$ **1,173,228**	$ **1,632,849**	$ **5,106,520**
	Overhead (HR, startup, IT, utilities, classroom renov/tech, etc)		$ 290,804	$ 320,804	$ 538,614	$ 586,614	$ 816,425	$ 2,553,260
26	**Total Proposed Program Uses**	$ -	$ **872,411**	$ **962,411**	$ **1,615,842**	$ **1,759,842**	$ **2,449,274**	$ **7,659,780**

Comments

Chief Financial Officer

Name Richard Amon

Date 04/15/2025 | 2:53 PM EDT

Signature

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X Richard Amon
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EAB

EAB MARKET INSIGHTS

Market Pulsecheck for a Bachelor's-Level Artificial Intelligence Program

Completed for the University of North Carolina at Charlotte
February 2025

Research Associate

Grace Warner

Research Manager

Emma Veon

Table of Contents

Market Pulsecheck Overview

An evaluation of employer demand for graduates from bachelor's-level artificial intelligence programs in statewide, regional, and national markets, and of student demand for similar programs.

Analysis Includes:

- Job Posting Trends
- Top Occupations
- Top Skills
- Education Levels
- Degree Completion Trends

This analysis considered demand in areas defined as:

- Statewide: North Carolina
- Regional: District of Columbia, Maryland, South Carolina, and Virginia
- National: the United States

Market Pulsecheck Options for Next Steps

Following this analysis, the requesting partner can:

- Contact your Strategic Leader to schedule a call with the EAB research team to review the report.
- Choose to discontinue the research, if the leadership is able to make a decision based on this analysis and other institutional research.
- Continue the analysis. A final report of the continued research will address credential design and curricular recommendations.

Though Limited Student Demand Offers an Uncertain Competitive Outlook in Profiled Regions, a Healthy Labor Market Indicates Opportunity for New Program Success

Preliminary Program Outlook

Favorable employer demand indicates program graduates will encounter ample opportunities in the statewide and regional labor markets. Statewide and regional employer demand trends signal a healthy market for bachelor's-level artificial intelligence professionals. From February 2024 to January 2025, employers advertised a moderate number of relevant job postings in both statewide and regional labor markets (6,508 and 28,224, respectively). Between February 2022 and January 2025, relevant employer demand declined an average actual eight job postings per month statewide, and seven postings per month regionally. However, during the same period, employer demand in the regional market grew an average monthly 0.45% and 0.15% in the statewide market. Overall, a moderate number of opportunities signals an optimistic market outlook.

No statewide institutions and only one regional institution reported completions under the profiled CIP code. Limited data prevents a complete evaluation of market opportunity in the profiled regions.

Increasing national completions indicate an opportunity for new program development; however, limited student demand and strong competitors may challenge sustainable growth. Rising student demand (net growth of 91 completions) across the 2018-2019 and 2022-2023 academic years bodes well. Notably, Carnegie Mellon University reported the most significant growth between the 2018-2019 and 2022-2023 academic years (net increase of 33 completions) and emerged as the market leader nationally in the most recent profiled year, reporting 33 completions (30.28% market share). Further, 20% of institutions reported 62.39% market share in the 2022-2023 academic year, signaling market concentration. While market concentration and strong competitors signal a challenging competitive landscape, increasing student demand indicates potential for program launch. However, low completions suggest incoming programs will likely see small class sizes.

Research Limitations Summary

Due to limited statewide and regional competitive landscape data, we included national competitive trends in the report to illustrate student interest in relevant programming across the United States. To see our complete methodology, please see pages 15-17.

Labor Market Intelligence

Statewide Analysis of Job Postings for Bachelor's-Level Artificial Intelligence Professionals

Statewide employer demand trends indicate a modest but favorable market for bachelor's-level artificial intelligence professionals. From February 2024 to January 2025, employers advertised a moderate number of relevant job postings (6,508). Between February 2022 and January 2025, relevant employer demand grew an average monthly 0.15%; however, this translates to an average actual decline of eight job postings monthly. During the same period, demand for all bachelor's-level professionals declined 1.05% on average monthly, indicating graduates will likely enter a more favorable market than average. Relatively stable employer demand and a moderate number of relevant job postings over the last 12 months indicate graduates will likely find employment in the statewide market.

+0.15%

Average Monthly Demand Growth

February 2022 - January 2025, Statewide Data

- Average monthly decline of eight job postings.
- During the same period, demand for all bachelor's-level professionals declined 1.05%.

1,191 postings

Average Monthly Demand

February 2022 - January 2025, Statewide Data

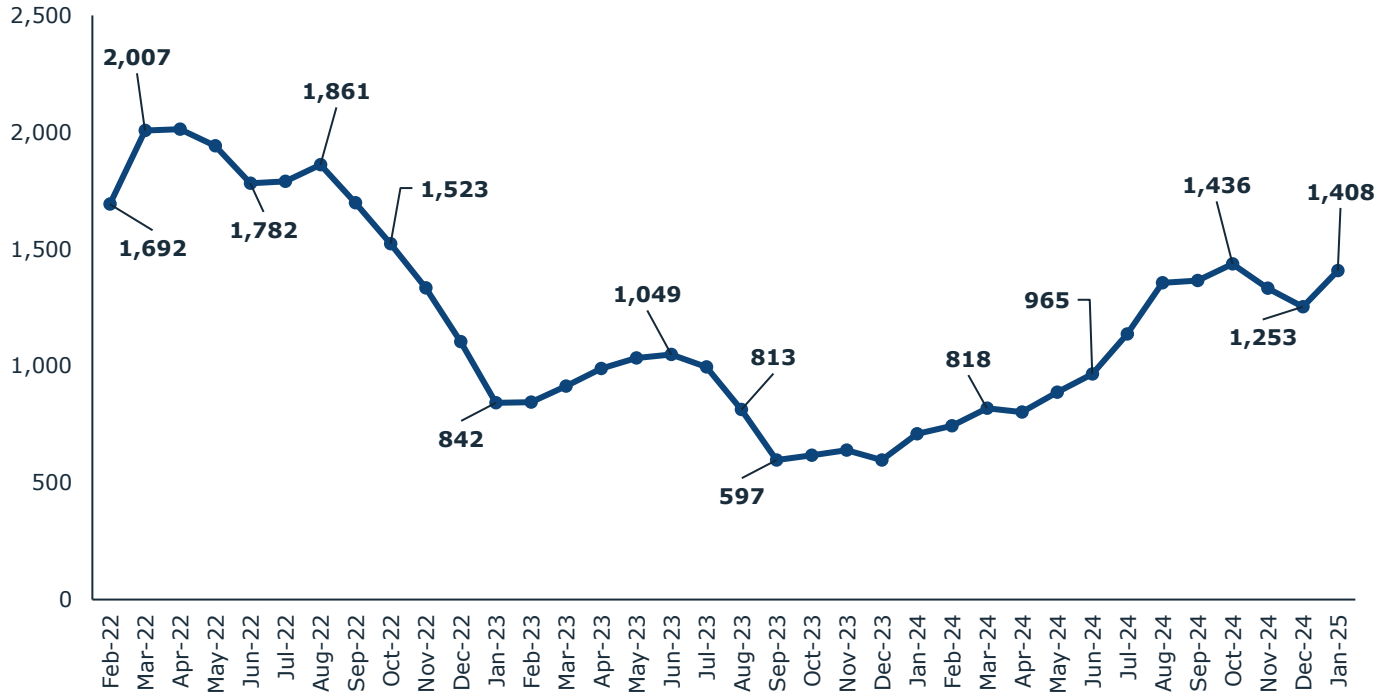
6,508 postings

Relevant Jobs Posted in the Past Year

February 2024 - January 2025, Statewide Data

Job Postings for Bachelor's-Level Artificial Intelligence Professionals

February 2022 - January 2025, Statewide Data



Source: EAB analysis. Lightcast.

Regional Analysis of Job Postings for Bachelor's-Level Artificial Intelligence Professionals

Regional employers demonstrated a moderate but increasing need over the profiled period, advertising 28,224 postings between February 2024 and January 2025. Over the last 36 months, regional employer demand increased by an average monthly 0.45%, while demand for all bachelor's-level professionals declined an average monthly 0.80%. Moderate but growing student demand indicates graduates will enter an expanding labor market.

+0.45%

Average Monthly Demand Growth

February 2022 - January 2025, Regional Data

- Average monthly growth of seven job postings.
- During the same period, demand for all bachelor's-level professionals declined 0.80%.

5,430 postings

Average Monthly Demand

February 2022 - January 2025, Regional Data

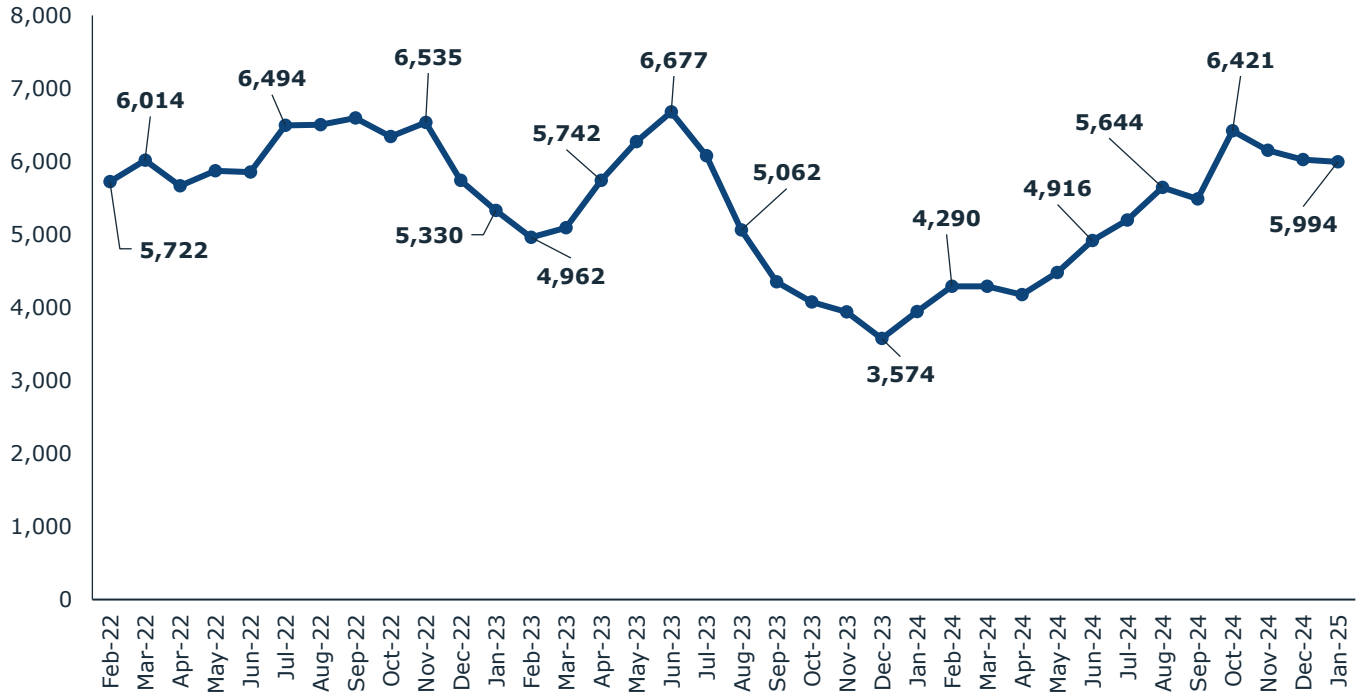
28,224 postings

Relevant Jobs Posted in the Past Year

February 2024 - January 2025, Regional Data

Job Postings for Bachelor's-Level Artificial Intelligence Professionals

February 2022 - January 2025, Regional Data



Source: EAB analysis. Lightcast.

Statewide Analysis of Job Postings and Future Employment for Artificial Intelligence Professionals

Employment is projected to increase faster than average in all of the top five occupations between 2025 and 2035, indicating an optimistic outlook for future job growth. Job titles listed under the occupation Computer Occupations, All Other include Product Owners, Cybersecurity Engineers, and Cloud Architects.

While these occupations represent the most common occupations appearing in job postings for bachelor's-level artificial intelligence professionals, projected employment data considers all jobs within an occupation at all degree levels.

Top Occupations Across Job Postings for Bachelor's-Level Artificial Intelligence Professionals

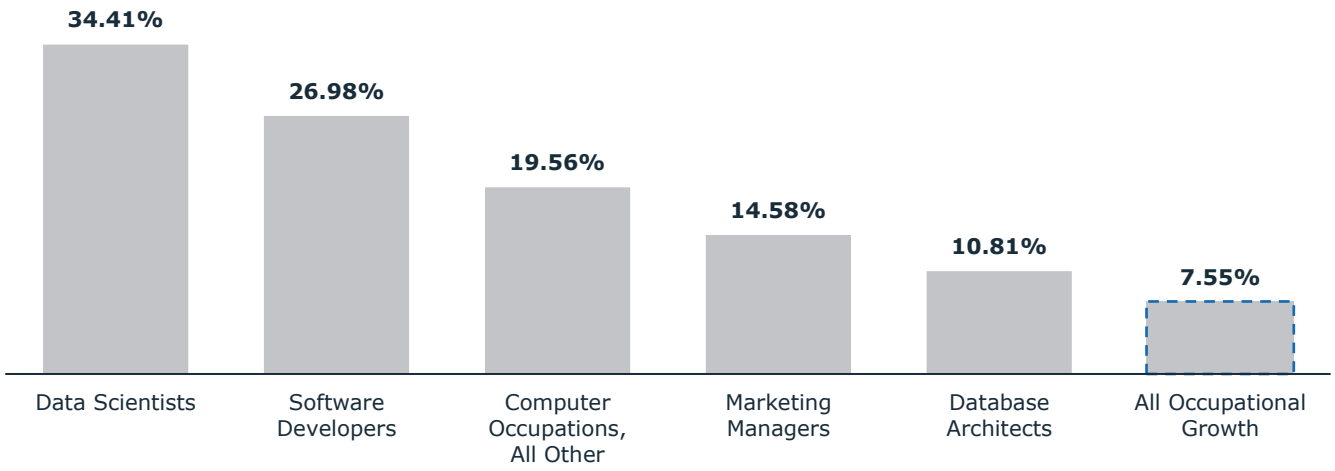
February 2024 - January 2025, Statewide Data

n = 6,508 job postings

Occupation	Percent of Relevant Job Postings within Occupation	Number of Relevant Job Postings within Occupation
Data Scientists	18.12%	1,179
Software Developers	17.73%	1,154
Computer Occupations, All Other	12.77%	831
Marketing Managers	5.01%	326
Database Architects	4.98%	324
Database Administrators	3.76%	245
Management Analysts	2.52%	164
Financial Risk Specialists	2.30%	150
Market Research Analysts and Marketing Specialists	2.01%	131
General and Operations Managers	1.61%	105

Projected Employment in Top Occupations[1]

2025 - 2035, Statewide Data



1) Top occupations refer to the occupations in which employers most often seek relevant professionals.

Source: EAB analysis. Lightcast.

Regional Analysis of Job Postings and Future Employment for Artificial Intelligence Professionals

Regional employment is projected to increase faster than average for four of the top five occupations in the next decade. This indicates employment opportunities for graduates will likely increase in the coming years. The Bureau of Labor Statistics projects an increase in demand for the occupation Data Scientists due to growing need for data scientists to mine and analyze large amounts of information and data required for business decisions.

While these occupations represent the most common occupations appearing in job postings for bachelor's-level artificial intelligence professionals, projected employment data considers all jobs within an occupation at all degree levels.

Top Occupations Across Job Postings for Bachelor's-Level Artificial Intelligence Professionals

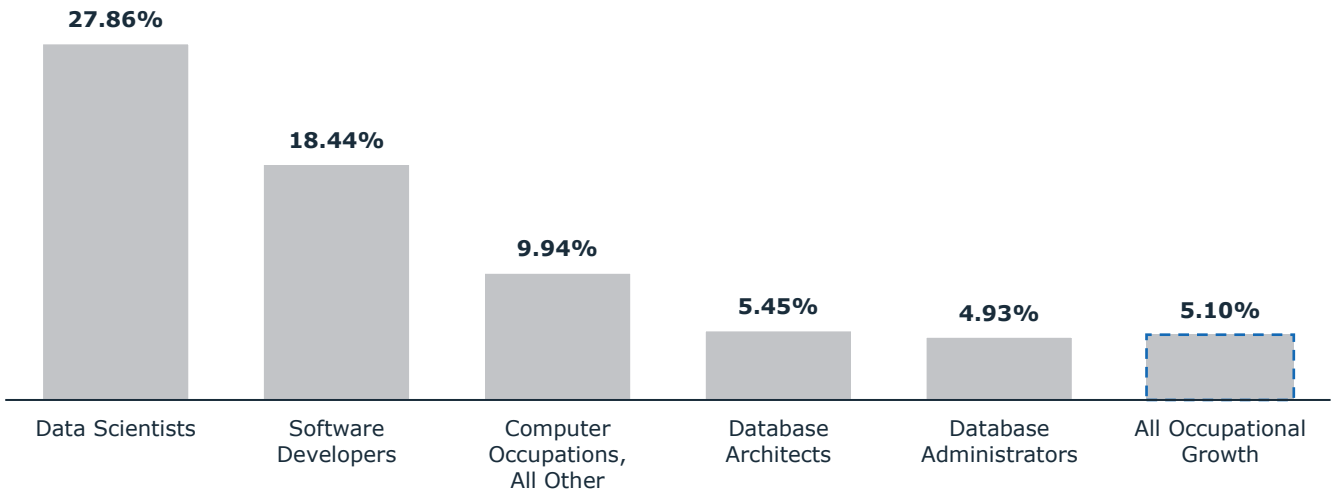
February 2024 - January 2025, Regional Data

n = 28,224 job postings

Occupation	Percent of Relevant Job Postings within Occupation	Number of Relevant Job Postings within Occupation
Software Developers	21.75%	6,138
Data Scientists	19.90%	5,616
Computer Occupations, All Other	13.57%	3,829
Database Administrators	4.42%	1,247
Database Architects	3.96%	1,117
Marketing Managers	2.58%	729
Management Analysts	1.95%	551
Project Management Specialists	1.54%	435
Web Developers	1.39%	391
Web and Digital Interface Designers	1.30%	368

Projected Employment in Top Occupations[1]

2025 - 2035, Regional Data



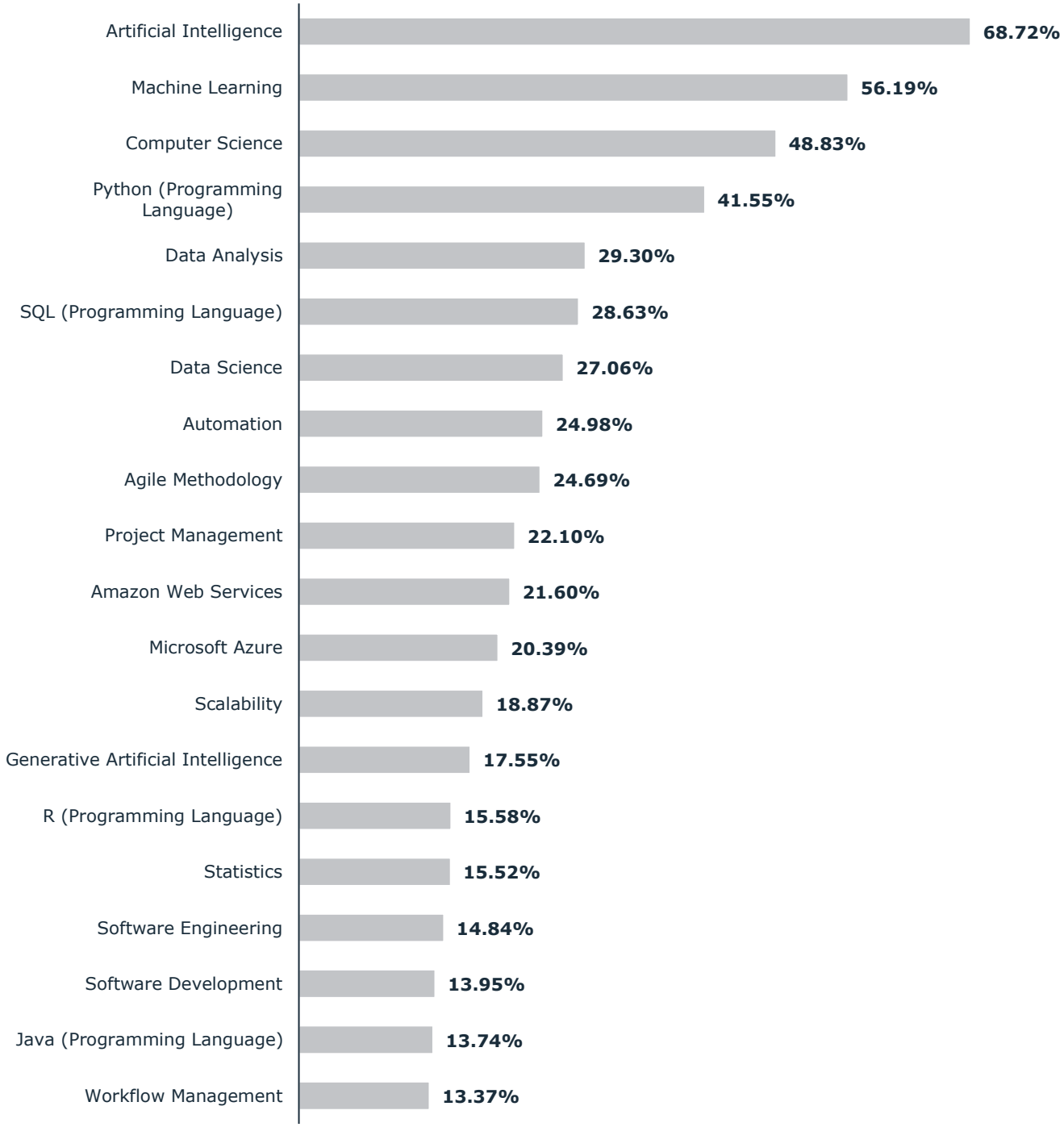
1) Top occupations refer to the occupations in which employers most often seek relevant professionals.

Source: EAB analysis. Lightcast.

Top Skills in Job Postings for Bachelor's-Level Artificial Intelligence Professionals

February 2024 - January 2025, Statewide Data

n = 6,508 job postings

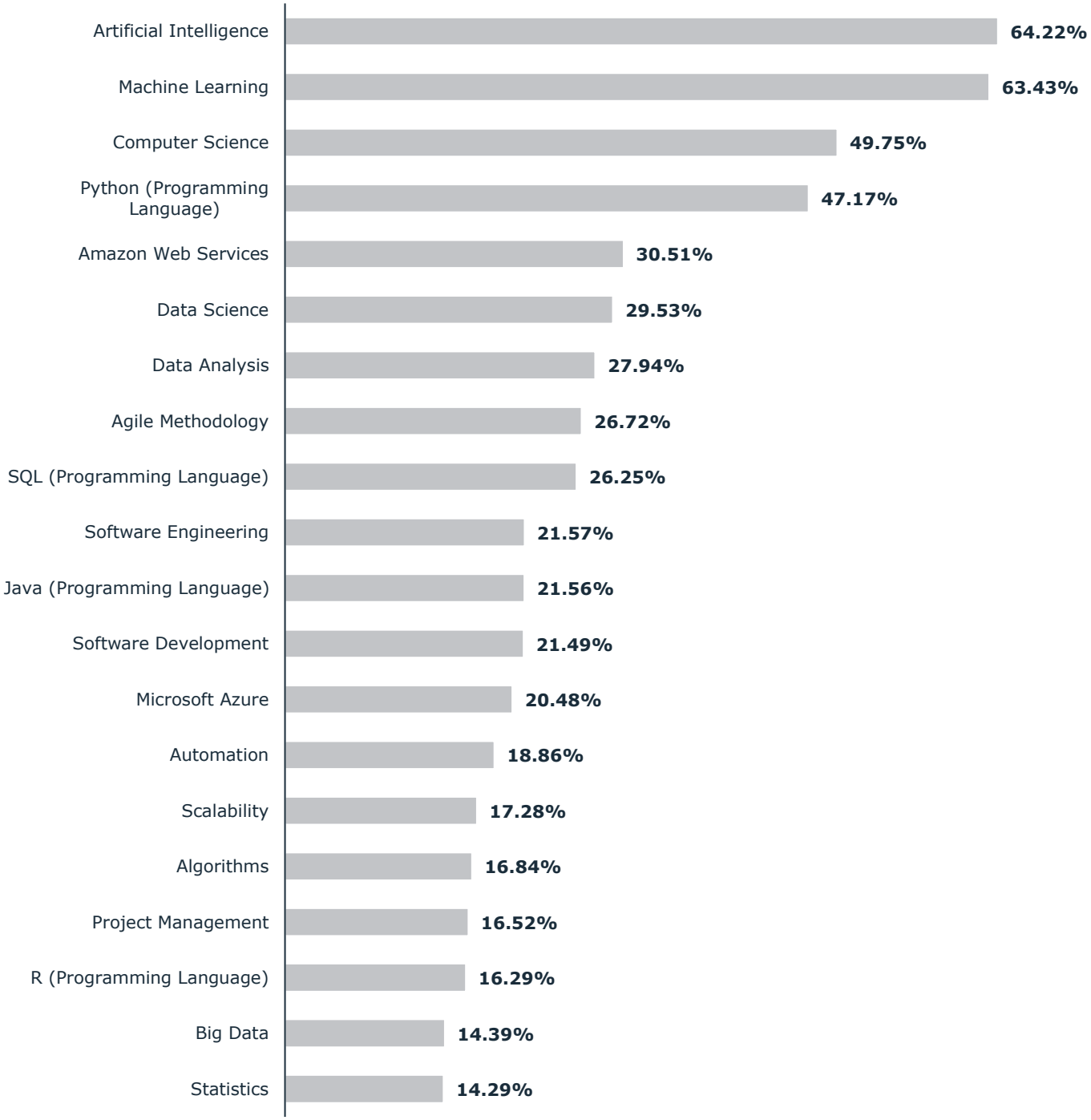


Source: EAB analysis. Lightcast.

Top Skills in Job Postings for Bachelor's-Level Artificial Intelligence Professionals

February 2024 - January 2025, Regional Data

n = 28,224 job postings

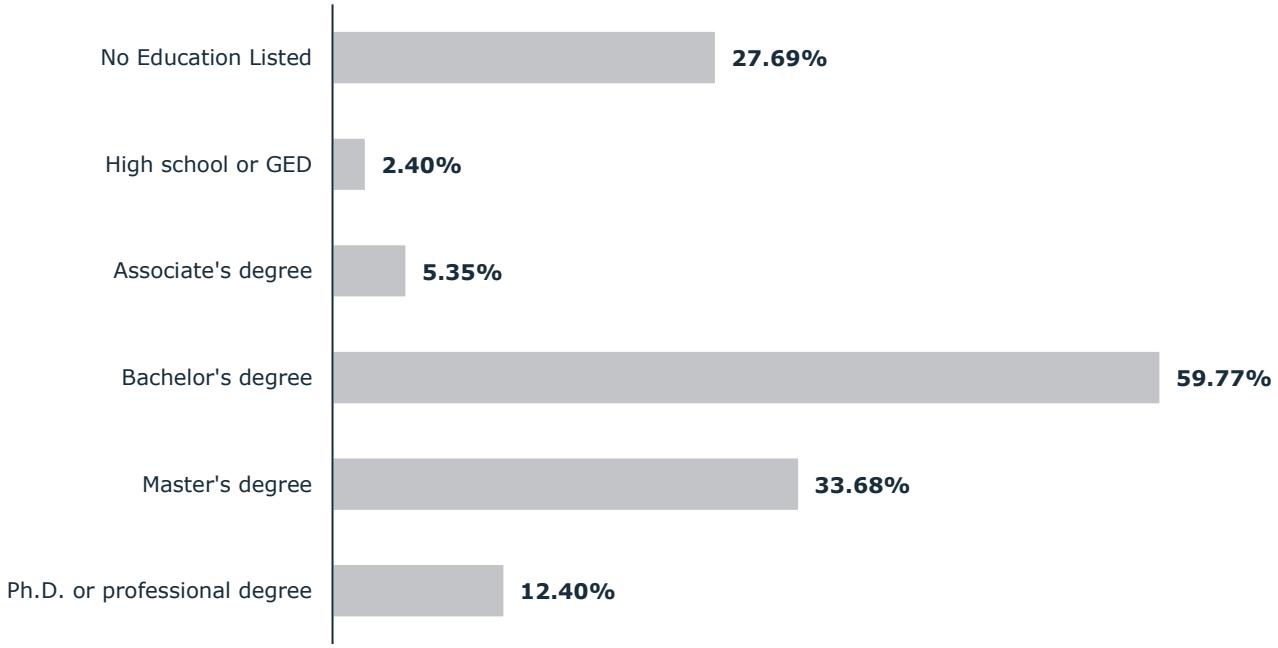


Source: EAB analysis. Lightcast.

Education Levels Requested of Artificial Intelligence Applicants[1]

February 2024 - January 2025, Statewide Data

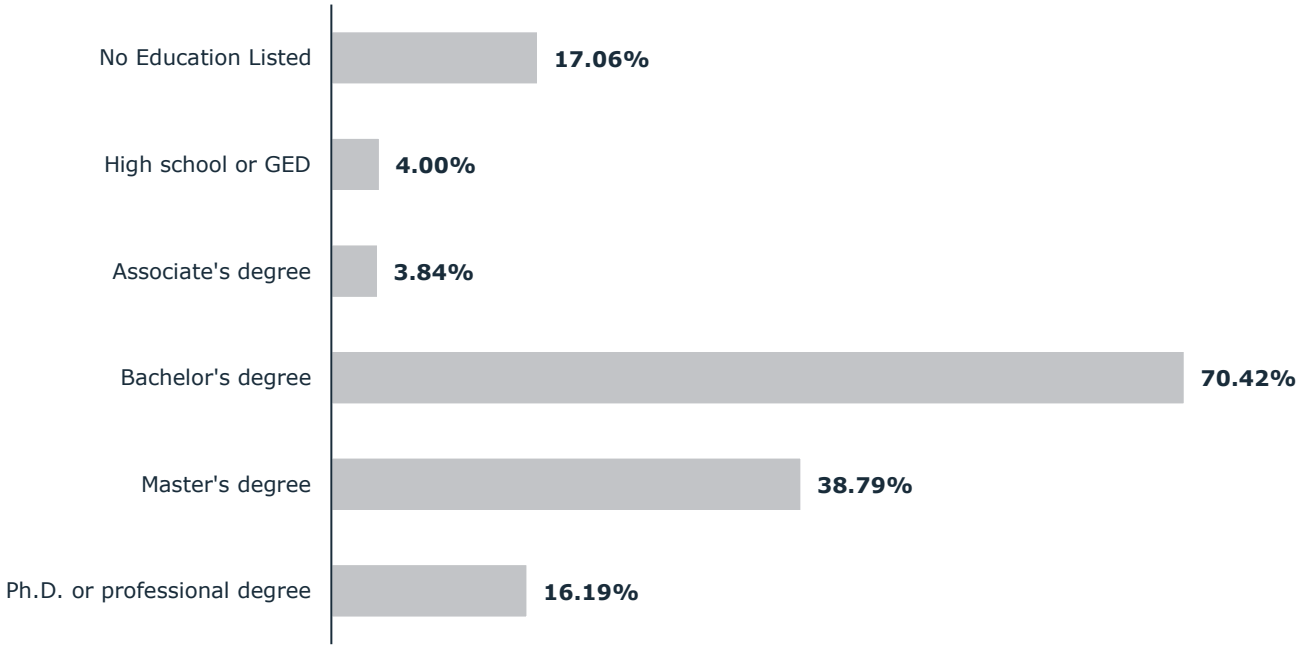
n = 10,888 job postings



Education Levels Requested of Artificial Intelligence Applicants[1]

February 2024 - January 2025, Regional Data

n = 40,077 job postings



1) The n-value reflects the number of job postings requesting any degree level artificial intelligence applicants rather than the number of postings requesting only those at the focus degree level.

Source: EAB analysis. Lightcast.

Competitive Intelligence

Regional Analysis of Bachelor's-Level Artificial Intelligence Completions Under CIP Code Artificial Intelligence (11.0102)

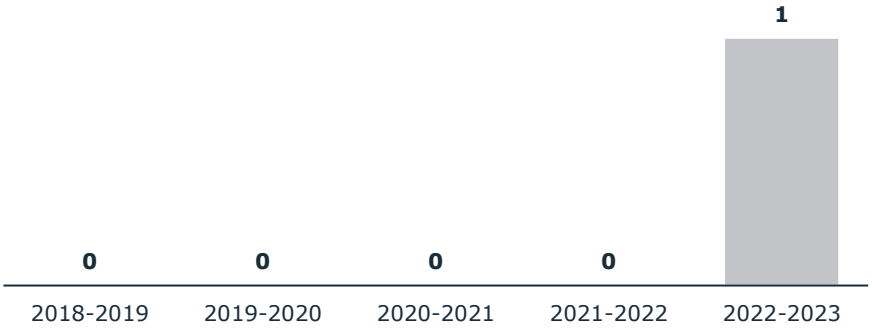
There were no reported completions between the 2018-2019 and 2022-2023 academic years in the regional market. Marymount University reported zero completions in the 2022-2023 academic year. Overall, limited data and student demand indicate an inconclusive competitive landscape outlook.

Completions Reported Over Time

2018-2019 to 2022-2023 Academic Years, Regional Data

Institutions Reporting Completions Over Time

2018-2019 to 2022-2023 Academic Years, Regional Data



0.00%

Average Annual Completions Growth

2018-2019 to 2022-2023 Academic Years, Regional Data

- During the same period, the number of institutions reporting completions grew by a net of one institution.

0.00%

Institutions Reporting Completions with a 100% Distance-Delivery Option

2022-2023 Academic Year, Regional Data

Institution Reporting Completions

2018-2019 to 2022-2023 Academic Years, Regional Data

Institution	Reported Completions, 2018-2019 Academic Year	Market Share, 2018-2019 Academic Year	Reported Completions, 2022-2023 Academic Year	Market Share, 2022-2023 Academic Year	Completions Reported via Distance-Delivery, 2022-2023 Academic Year
Marymount University	Not Offered	Not Offered	0	0.00%	No

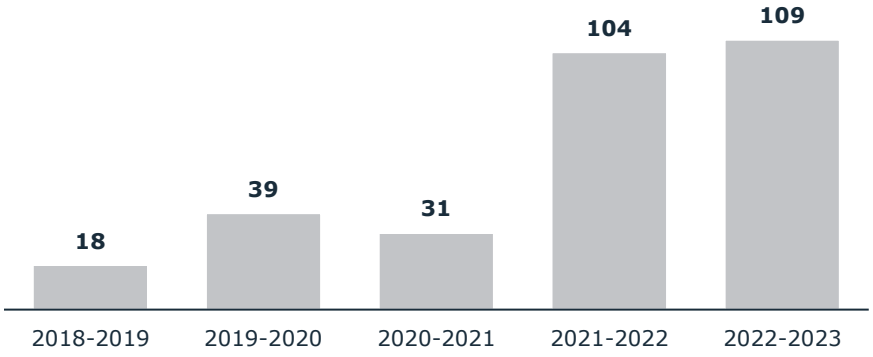
Source: EAB analysis. National Center for Education Statistics.

National Analysis of Bachelor's-Level Artificial Intelligence Completions Under CIP Code Artificial Intelligence (11.0102)

The number of national completions experienced a jump of 73 completions between the 2020-2021 and 2021-2022 academic years, indicating dramatic growth in student demand. During the 2018-2019 to 2022-2023 academic years, competition also increased rapidly, rising an average 48.39% annually (net of 15 institutions). Though fast-rising completions signal a favorable competitive market, a limited number of mean and median completions (5.74 and 2.00, respectively, in the 2022-2023 academic year) indicates small class sizes among national programs.

Completions Reported Over Time

2018-2019 to 2022-2023 Academic Years, National Data



84.11%

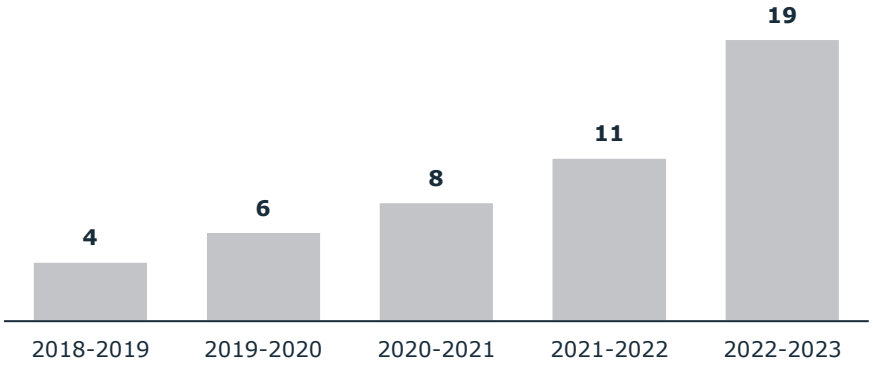
Average Annual Completions Growth

2018-2019 to 2022-2023 Academic Years, National Data

- During the same period, the number of institutions reporting completions grew by 48.39% on average annually.

Institutions Reporting Completions Over Time

2018-2019 to 2022-2023 Academic Years, National Data



10.53%

Institutions Reporting Completions with a 100% Distance-Delivery Option

2022-2023 Academic Year, National Data

Completions per Institution Reporting

2018-2019 and 2022-2023 Academic Years, National Data

Source: EAB analysis. National Center for Education Statistics.

National Analysis of Bachelor's-Level Artificial Intelligence Completions Under CIP Code Artificial Intelligence (11.0102)

Full Sail University reported all 18 national completions in the 2018-2019 academic year but trailed behind Carnegie Mellon University in the 2022-2023 academic year, reporting the second-highest number of completions (19). Carnegie Mellon University reported the most significant growth over this same period and emerged as the market leader in the most recent profiled year, reporting 33 completions (30.28% market share). The top 20% of institutions reported 62.39% market share in the 2022-2023 academic year, signaling market concentration. While rising student interest in relevant programming bodes well, strong and growing competition may challenge new program growth.

Institutions with Most Reported Completions

2018-2019 and 2022-2023 Academic Years, National Data

Institution	Reported Completions, 2018-2019 Academic Year	Market Share, 2018-2019 Academic Year	Reported Completions, 2022-2023 Academic Year	Market Share, 2022-2023 Academic Year	Completions Reported via Distance-Delivery, 2022-2023 Academic Year
Carnegie Mellon University	0	0.00%	33	30.28%	No
Full Sail University	18	100.00%	19	17.43%	No
Concordia University-Wisconsin	Not Offered	Not Offered	16	14.68%	No
University of Advancing Technology	Not Offered	Not Offered	10	9.17%	Yes
Pennsylvania State University-Main Campus	Not Offered	Not Offered	7	6.42%	No
Illinois Institute of Technology	0	0.00%	5	4.59%	No
Massachusetts Institute of Technology	Not Offered	Not Offered	4	3.67%	No
DigiPen Institute of Technology	Not Offered	Not Offered	3	2.75%	No
Drake University	Not Offered	Not Offered	3	2.75%	No
Indiana University-Bloomington	0	0.00%	2	1.83%	No

62.39%

Conferrals by top 20% of institutions

2022-2023 Academic Year, National Data

Source: EAB analysis. National Center for Education Statistics.

Research Process and Sources

EAB conducted an analysis to assess a proposed new programming opportunity.

All workforce demand data was collected from Lightcast, EAB's labor market intelligence partner. Competitive data was collected from the National Center for Education Statistics via the Lightcast platform.

1

Step One: Labor Market Analysis

This report includes an analysis of external labor market needs to determine demand for program graduates. Researchers evaluate historical job postings and future employment projections to determine if the labor market supports program growth.

2

Step Two: Competitive Landscape Analysis

The volume and growth of degree conferrals serves as an indicator of student demand for the program being evaluated. Researchers use conferral data to determine if the selected program is facing a crowded market or if it may struggle to attract students due to declining student interest.

3

(Optional) Step Three: Comparator Program Analysis

Researchers analyze how the design and curricula of similar programs should inform the structure and format of the proposed new program. The researchers collect information publicly available on profiled programs' webpages.

Research Methodology

EAB's market insights research guides strategic programmatic decisions at partner institutions. The Market Insights Service combines qualitative and quantitative data to help administrators identify opportunities for new program development, assess job market trends, and align curriculum with employer and student demand.

Unless stated otherwise, this report includes data from online job postings from January 2024 to December 2024. To best estimate employer demand for bachelor's-level artificial intelligence professionals, we analyzed job postings for bachelor's-level professionals with relevant skills (e.g., artificial intelligence, artificial intelligence development).

Research Questions

The requesting partner asked:

- **How has demand for graduates of my program evolved over time?**
- **What skills should the program teach to prepare students to meet employer demand?**
- **Which employers demonstrate the greatest demand for graduates?**
- **What education level do employers most frequently request from relevant professionals?**
- How are similar programs structured?
- How are similar programs delivered?
- What experiential or practical learning do similar programs offer?

Bolded questions were addressed within this analysis; remaining questions will be addressed if partner pursues additional research.

Research Limitations

Due to a limited student demand data in the state and region, we analyzed completions for bachelor's-level artificial intelligence dance at the national level in the competitive landscape analysis.

As institutions self-report degree completions data, the analyzed CIP code may not fully capture completions for all comparable programs in the profiled regions. Institutions may also report completions for programs unrelated to artificial intelligence under the CIP code analyzed in this report. Further, additional online programs may exist that are not captured in NCES data, as not all institutions offering a distance-delivery program report it as such. Additionally, if an institution offers multiple modalities, completions data will not distinguish between the number of online completions and face-to-face completions.

Definitions

- CIP code refers to the Classification of Instructional Programming code.
- Statewide refers to North Carolina.
- Region and regional refer to the following states: Virginia, Maryland, South Carolina, and the District of Columbia.
- National and nationally refer to the United States.

Data Sources

Lightcast
https://lightcast.io/

This report includes data made available through EAB's partnership with Lightcast (formerly known as Emsi Burning Glass), a labor market analytics firm serving higher education, economic development, and industry leaders in the U.S., Canada, and the United Kingdom.

Lightcast curates and maintains the most comprehensive labor market data sets available for academic program planning, providing real-time job posting data, workforce and alumni outcomes data, and traditional government sources of data. Under this partnership, EAB may use Lightcast proprietary Analyst™ and Alumni Insight™ tools to answer partner questions about employer demand, the competitive landscape, in-demand skills, postings versus actual hires, and skills gaps between job postings and professionals in the workforce. The Lightcast tools also provide EAB with in-depth access to unsuppressed, zip-code-level government data for occupations, industries, programs, and demographics. For more complete descriptions of the Lightcast tools, visit:

- https://lightcast.io/solutions/education/analyst
- https://lightcast.io/solutions/education/alumni-pathways

To learn more about Lightcast and its software and services, please contact Bob Hieronymus, Vice President of Business Development at bob.hieronymus@lightcast.io.

Integrated Postsecondary Education Data System (IPEDS)
https://nces.ed.gov/ipeds/

The Integrated Postsecondary Education Data System (IPEDS) is the Department of Education's National Center for Education Statistics' (NCES) core postsecondary education data collection program. Information is collected annually from all providers of postsecondary education in fundamental areas such as enrollment, program completion and graduation rates, institutional costs, student financial aid, and human resources.

Data collected through IPEDS is publicly released and can be accessed through the IPEDS Data Center by postsecondary education institutions and the general public. The IPEDS Data Center is designed as a centralized, web-based tool for the retrieval and analysis of IPEDS data, the system allows users to access and evaluate institutional data using a wide-range of analytical features that includes the ability to construct customized data sets, download full data files, and create statistical and trend analyses reports.

United States Bureau of Labor Statistics (BLS)
https://nces.ed.gov/ipeds/

EAB Research and Insights Library
https://eab.com/research-and-insights/

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