

New Academic Degree Program Request for Preliminary Authorization

Institution University of North Carolina at Charlotte

Degree Program Title (e.g., M.A. in Biology) B.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)	NA	
Graduate/Undergraduate Dean (If applicable)	NA	
Academic College/School Dean	Bojan Cukic	Dean, College of Computing and Informatics
Department Head/Chair	Min Shin	Chair, Department of Computer Science
Program	Harini Ramaprasad	CCI Associate Dean,
Director/Coordinator		Undergraduate Programs and
		Student Success

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.	Νο
Degree Program Title (e.g., M.A. in Biology)	B. S. in Artificial Intelligence
CIP Code and CIP Title (May be found at <u>National Center</u> <u>for Education Statistics</u>)	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.)

This new program is not substantive and does not require SACSCOC notification or approval.

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 <u>website</u>, 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 Bachelor of Science (BS) in Artificial Intelligence (AI) at UNC Charlotte aligns with its mission as a leading urban research institution with substantial local-to-global impact. Through accessible and affordable education, this program will prepare students to address real-world challenges with cutting-edge AI expertise.

The program supports the mission of the UNC System, emphasizing education, research, and public service for North Carolinians. Labor market projections indicate a significant rise in AI-related jobs across North Carolina (NC), particularly in healthcare, finance, cybersecurity, and transportation.

According to EAB, strong employer demand suggests ample opportunities for AI graduates in statewide and regional labor markets. Between February 2024 and January 2025, EAB identified **6,508 statewide AI-related job postings and 28,224 regional ones**, highlighting a robust workforce demand.¹

By offering this program, UNC Charlotte will strengthen NC's workforce development. The university is already a leader in AI research, with advancements in mixed reality, natural language processing, computer vision, and machine learning through the <u>Human Centered Computing (HCC)</u> Lab, the Gaming and Mixed Reality Lab, the <u>CharMLab</u>, and the <u>Center for Computational Intelligence to Predict Health & Environmental Risks (CIPHER)</u>. With faculty from the College of Computing and Informatics (CCI) at the forefront of AI innovation, the program is guided by leading scholars and practitioners in the field.

Collaboration with Other NC Institutions

The program will foster collaboration with other UNC institutions, promoting best practices, interdisciplinary 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. Approved by the UNC System Board of Governors in 2024, NC A&T's BS in AI was set for a Fall 2025 launch but the timeline shifted and may now align with UNC Charlotte's planned launch in Fall 2026. While other universities offer AI concentrations within computer science degrees, these will be the only stand-alone AI bachelor's programs in the state.

Distinction from Existing Programs in the UNC System

Currently, NC A&T is the only UNC System institution planning to offer an undergraduate degree in AI², projected for Fall 2026. Their program will offer two tracks: AI Computing and Engineering Track (AICE) in the College of Engineering (Computer Science), and Applied AI Track in the College of Science and Technology

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

² North Carolina Agricultural and Technical State University. (2024, November). *Artificial Intelligence research to drive economic development*. Retrieved from https://www.ncat.edu/news/2024/11/artificial-intelligence.php

(Computer Systems Technology). UNC Charlotte's BS AI proposal aligns with NC A&T's AICE Track, both built around a computer science curriculum, with introductory AI courses. UNC Charlotte's distinguishing features include a freshman AI Literacy course, emphasis on cloud-first development, and six clusters of senior-level electives, elevating student preparation for AI careers beyond what a concentration in another computing major could achieve.

UNC Charlotte, home to NC's largest computing program and its only Graduate Certificate in Applied AI, is uniquely positioned to offer a distinct AI degree. With established CCI programs in computer science, data science, and sports analytics - fields rapidly evolving with AI - UNC Charlotte can deliver a program focused on applied learning, real-world problem-solving, cross-disciplinary collaboration, and hands-on experiences.

Both UNC Charlotte and NC A&T can contribute to AI education and workforce development in NC, each with unique strengths. UNC Charlotte's location in one of NC's largest cities, R1 status, and ties with companies like Bank of America, Ally, Duke Energy, Lowe's, can facilitate program growth.

UNC Charlotte also offers many graduate opportunities, including MS degrees in Computer Science, IT, Cybersecurity, Data Science and Business Analytics, and a proposed MS in AI, providing students - including NC A&T BS in AI graduates, pathways to further education and advanced skills development.

Distinction from Existing Programs Across the Nation

According to iPeds Data Center (DOE)³, less than 20 universities awarded an AI-specific undergraduate degree (CIP code 11.0102) in 2023, highlighting strong market need, given the expected rapid growth for AI-related jobs. Compared to other current BS in AI programs, UNC Charlotte offers affordable tuition for NC residents and a wide selection of 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. Backed by one of the nation's largest computing colleges, the program benefits from extensive experience in educating large student cohorts, as demonstrated by over 3,000 undergraduate CCI degrees awarded since Fall 2019.

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

UNC System Strategic Plan Alignment

- **Student Success:** By integrating real-world case studies, professionalism, and AI ethics into a curriculum grounded in theoretical and analytical skills, the program will equip students with competitive skills and job-ready expertise.
- Affordability and Efficiency: UNC Charlotte's commitment to affordability will extend to this program, ensuring cost-effectiveness while maintaining high-quality instruction.
- Economic Impact and Community Engagement: The AI field is projected to drive job creation and economic growth. EAB reports a 0.45% average monthly increase in regional demand for bachelor's-level AI professionals over the past 36 months, while overall bachelor's-level demand declined an

³ IPEDS Data, <u>https://nces.ed.gov/ipeds/use-the-data</u>, Filter includes: US, Title IV, degree-granting institutions, CIP code 11.0102, year: 2023.

average monthly 0.80%.⁴ This program will help meet workforce needs, strengthening the local and state economy.

UNC Charlotte Strategic Plan Alignment

- **Transform Students' Lives Through Educational Opportunity and Excellence:** This program will equip students with cutting-edge AI knowledge through career-ready case studies and practice with industry-used tools, preparing them for leadership roles in emerging industries.
- **Power the Future Through Inquiry, Research, and Creative Discovery:** While primarily industry-focused, the program will have undergraduate research and thesis options, enabling faculty and students to engage 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: Aligned with the NC System's Economic Impact and Community Engagement goals, UNC Charlotte's AI program will support statewide progress. EAB projects above-average employment growth in the top five occupations seeking bachelor's-level AI professionals between 2025 and 2035.⁵
- **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 Al-related programs and courses demonstrate strong and sustained student interest:

- **BS in Computer Science with AI, Robotics, and Gaming Concentration:** 359 students currently enrolled, reflecting 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 Al topics**. The sustained demand supports the **viability of a dedicated BS in Al program**, allowing students to develop deeper

⁴ EAB. (2025, February). Market pulsecheck for a bachelor's-level artificial intelligence program. See Appendix B for the full study.

⁵ EAB. (2025, February). Market pulsecheck for a bachelor's-level artificial intelligence program. See Appendix B for the full study.

expertise beyond an AI concentration.

Future Program Interest

Al'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. While not the exclusive focus of this degree, our BS in AI has the potential to attract working adults 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 growth of our AI-focused graduate certificate, *Applied Artificial Intelligence*. However, this certificate program does not serve those in the same age group who lack an undergraduate degree, highlighting a gap in educational opportunities.

Existing Student Interest

Enrollments	Fall 2020	Fall 2021	Fall 2022	Fall 2023	Fall 2024	Growth %
Applied Artificial Intelligence, Graduate Certificate	NA	3	9	16	20	567%
BS in Computer Science, AI, Robotics, & Gaming concentration	268	260	263	286	340	27%
BS in Computer Science, Any concentration	2107	2159	2236	2560	2708	29%

The table above indicates strong growth in demand for AI-branded programs at UNC Charlotte. At the undergraduate level, the enrollment in AI, Robotics, & Gaming concentration in the BS Computer Science program grew by 27%, roughly proportional to the overall growth in the Computer Science major. Conversations within the group of deans of computing colleges in the US, in which UNC Charlotte's Dean Cukic participates regularly, indicate a slow nationwide decline of interest in Computer Science degrees, but an increase in demand for AI coursework and degrees. These are new trends but they correlate with UNC Charlotte's Fall 2025 undergraduate admission data. We feel confident that the investment to develop a new BS in AI degree program is timely and justified.

While there are some synergies between the proposed BS in AI and our existing BS in Computer Science, particularly the AI, Robotics & Gaming (AIRG) concentration, the BS in AI is a more streamlined and specialized program. Unlike the AIRG concentration, which introduces AI concepts later in the curriculum, the BS in AI integrates AI-related coursework beginning in the first year and systematically builds expertise throughout the program. This structure better prepares students for AI-centric careers and aligns with industry needs for specialized AI professionals.

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."⁶ EAB's research found that no statewide institutions and only one regional institution have awarded an AI degree, signaling a significant lack of options for prospective students. As a result, many individuals have turned to private learning and self-directed courses⁷ to fill this gap.

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.

The BS in Artificial Intelligence degree program will be structured similarly to the already existing undergraduate programs in CCI. Any student accepted to UNC Charlotte will be able to declare this major and any student in good standing at the university will be allowed to transfer into the program. We will leverage experience from the BS Computer Science, particularly the concentration in AI, Robotics, and Gaming, that enable and support interested students who may enter college without extensive programming background to succeed in the major. The same Integrated Critical Core curriculum team that supports Computer Science will be tasked with supporting the BS in AI core, which shares some of the same courses. We have ensured that the proposed program is accessible by eliminating any additional barriers or admission requirements.

The proposed program is expected to be similar to the overall student debt load for graduates of \$22k⁸. This is lower than both the North Carolina and US average debt load for students. With the high potential incomes of around \$84k/year for entry level BS graduates⁹, we expect our graduates to be able to repay their debts.

Student Success at CCI: A Commitment to Access and Affordability

At the College of Computing and Informatics (CCI), student success is at the heart of everything we do. We believe that when students are supported effectively, they graduate on time, reducing both debt and financial

⁶ Burtch Works. (2024). Data Science & AI Professionals Salary Report (p. 19). Retrieved from https://www.burtchworks.com/salary-2024.

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

⁸ https://inside.charlotte.edu/news-features/2021-11-16/unc-charlotte-students-graduate-student-loan-debt-lower-statenational

⁹ Burtch Works. (2024). Data Science & AI Professionals Salary Report (p. 22). Retrieved from https://www.burtchworks.com/salary-2024

barriers to higher education. By ensuring high graduation rates and a strong foundation in computing, we make degrees in technology more accessible and affordable for all.

To achieve this, we've built a culture of continuous improvement and support. The Center for Education Innovation and Research (CEIR) unit fosters innovative and high-impact teaching practices through workshops and talks, helping faculty refine their approaches to student learning. We also participate in a national program with Northeastern University and others that allow us to systematically identify and remove barriers that prevent students from thriving. These interventions are designed to be evidence-based, systemic, and sustainable without requiring ongoing funding.

CCI also developed the Integrated Critical Core (ICC), a dedicated unit focused on the first two years of our computing degrees, including the new BS in Artificial Intelligence. By providing targeted support regardless of a student's prior experience, we ensure that every student builds a strong foundation in computing. Additionally, our Student Classroom Experience (SCE) Project brings faculty together to analyze student learning experiences, identifying gaps and implementing solutions to enhance student success.

Our commitment to student success is reflected in our strong retention and graduation rates, which have consistently outpaced the university-wide average. Over the past decade, CCI's first-year retention rate for first-time, full-time students has increased from 76.8% (Fall 2009 cohort) to 87.8% (Fall 2019 cohort), surpassing the university's overall increase from 77.5% to 84.7%. Likewise, our five-year graduation rate has risen from 52.5% (Fall 2009 cohort) to 65.3% (Fall 2015 cohort), exceeding the university's graduation rate, which has improved from 47.5% to 62.2%. These gains are a direct result of our targeted student support initiatives, evidence-based teaching practices, and a focus on creating an inclusive and welcoming computing education.

Through these initiatives, CCI ensures that more students succeed, graduate on time, and enter the workforce with confidence—making computing education both accessible and affordable.

- 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 <u>ncworks.gov</u>, <u>nctower.com</u>, or outside vendors such as <u>Burning Glass</u>).
 - ii. Available from national occupational and industry projections (such as the <u>U.S. Bureau</u> 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.gov¹⁰ reveals a high demand for AI professionals both statewide and in the Charlotte region.

- Statewide: Over 2,600 Al-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 BS 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.¹¹
- U.S. Bureau of Labor Statistics (November 2024)¹²:
 - **Software development** demand is rising due to AI integration.
 - Data scientists and machine learning engineers are becoming critical as AI adoption grows.
 - 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 AI degree program** at UNC Charlotte will equip students with the specialized skills needed to meet evolving workforce demands.

Industry Report Analysis

According to an analysis by EAB¹³, employer demand for AI professionals in North Carolina and the regional labor market remains favorable despite slight fluctuations in job postings.

¹⁰ NCWorks.gov. (2025, February 24). Job search results for "Artificial Intelligence". Retrieved from <u>https://www.ncworks.gov</u>

¹¹ Lightcast. (2024). The Speed of Skill Change. Retrieved February 2025, from <u>https://lightcast.io/resources/research/speed-of-skill-change</u>.

¹² Bureau of Labor Statistics, "Industry and Occupational Employment Projections Overview and Highlights, 2023–33," Monthly Labor Review, U.S. Department of Labor, 2024, <u>https://www.bls.gov/opub/mlr/2024/article/industry-and-occupational-employment-projections-overview-and-highlights-2023-33.htm</u>.

¹³ EAB. (2025). *Employer Demand Analysis for AI Professionals*. Page 4. See Appendix B for the full study.

- From February 2024 to January 2025, employers posted 6,508 AI-related job listings statewide and 28,224 regionally.
- While the number of postings declined slightly over the past three years (by an average of eight per month statewide and seven regionally), employer demand in the regional market grew by an average of 0.45% per month, with a 0.15% increase in the statewide market.
 - If the total labor market for AI jobs is expanding (e.g., more companies are interested in AI roles), the growth rate can still be positive, even if individual job postings fluctuate.
- Overall, these trends indicate a moderate but optimistic job market outlook for graduates with a bachelor's degree in AI.

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. We have seen this interest demonstrated in the strong interest in our AI courses and existing concentration (see Section III). 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. Similarly, the undergraduate concentration in AI, Robotics, and Gaming has grown by 24% in the same period.

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)."¹⁴ This disruption signals that a concentration within a Data Science or Computer Science 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 BS 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 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 <u>all</u> 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

¹⁴ Lightcast. (2024). *The Speed of Skill Change*. Retrieved February 2025, from <u>https://lightcast.io/resources/research/speed-of-skill-change</u>.

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 BS in Artificial Intelligence program curriculum takes advantage of existing computer science courses and labs that are already offered as a part of our BS in Computer Science and BA in Computer Science. Twenty percent of the curriculum, 9 courses, will be developed as new and distinct from the BS in Computer Science with a concentration in Artificial Intelligence, Robotics, and Gaming. There is no new general education course required for the proposed curriculum. 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 and the 9 new courses will increase faculty teaching load. To efficiently handle the increased load, 6 new teaching faculty positions are requested by the end of Year 5. Expected enrollment will necessitate 1 new teaching faculty each year until year 5, when 2 new faculty are requested. We assume that new students will take, on the average, 9 credit hours in the College of Computing each semester, either in newly developed AI courses or in existing Computer Science courses that are part of the BS AI curriculum. This is a realistic assumption, given program requirements. With a class size of up to 75, and the projected student growth shown in the table below, 6 new sections will be needed in Year 1. This is the typical workload of a teaching faculty member. To further support instruction, we are requesting resources for Teaching Assistants (TAs). We assume a student-to-TA ratio of 40:1, with approximately 60% of TAs being undergraduate students and 40% being MS students. For Year 1 this implies the request for 6 undergraduate and 3 MS TAs. Additionally, PhD TAs would serve as "Lead TAs", i.e., lab coordinators and instructors for introductory courses that have a lab component. These assumptions lead to the request for 6 new teaching faculty members, 60 new TAs (36 plus 24) and 4 PhD TAs by Year 5, given the expected enrollment growth.

	Year 1	Year 2	Year 3	Year 4	Year 5
Student Enrollment	55	122	188	294	400
Teaching Faculty	1	2	3	4	6
UG TAs	6	12	18	27	36
MS TAs	3	7	11	18	24
PhD TAs	1	2	3	3	4

In addition to faculty and TAs, the program will require one dedicated Student Advisor and ½ FTE Student Services Specialist. Program administration will require a ½ FTE month stipend for the Program Director. There are, in addition, expenses for faculty members teaching General Education courses outside of the College of Computing and Informatics. 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 approximately \$7.9M 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 400 students by Year 5, with an estimated 50 major-change students from existing programs. The 50 major change students may come from many existing majors, and that may result in slight change in credit hours in their original majors. Nevertheless, given the overall enrollment growth at UNC Charlotte, such a reduction in credit hours is unlikely. Using current rates, the total revenue from tuition and fees over five years is computed as \$12.1M, as detailed in the attached Academic Program Planning Financial Worksheet, Appendix A. As the program grows, major fees 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.

The major fee currently in place in the College of Computing and Informatics is \$225 per year¹⁵. We will request an equivalent fee for this new program. We will invest this generated revenue to support student success

¹⁵ https://ninercentral.charlotte.edu/wp-content/uploads/sites/803/2023/09/Undergraduate_MainCampus_2324.pdf

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.

This program is not dependent on differential tuition or special state appropriations. 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.

Not applicable.

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.

Not applicable.

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

Not applicable.

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	03/26/2025 6:04 PM EDT
Provost	DocuSigned by: Jumifer Troyer CB79653C3A82433	03/26/2025 2:06 PM EDT

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

Position Title	Signature	Date
Chancellor		
Provost		

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Current Program Sources (if annlicable)	Rate	Yei	Year 0 (Start IIn)	1ct Vear	2nd veal	vear	3rd Vear		4th Year	5th Year		τοτάι s
		10101	200	1001 101	2	100	014104			2411 1441	1	200
1 General Fund Appropriation											S	'
2 NC Promise Appropriation											Ŷ	'
3 Resident Enrollment (FTE)				25		50	50	~	50		25	
4 Regular Resident Tuition (Annual Rate)	\$ 3,812	ŝ	,	\$ 95,300	Ŷ	190,600 \$	190,600	\$ 0	190,600	\$ 95,300	\$ 00	762,400
5 Nonresident Enrollment (FTE)					<i>c</i> ′	4	1	F.	4		2	
6 Regular Nonresident Tuition (Annual Rate)	\$ 19,065	ŝ	,	\$ 38,130	ŝ	76,260 \$	76,260	\$ 0	76,260	\$ 38,130	30 \$	305,040
7 Tuition Differential (Annual Rate)	Ş	Ś	,	, S						Ś	Ś	
8 Special Fees	\$ 3,427	ŝ	,	\$ 92,529	ŝ	185,058 \$	185,058	ېد «	185,058	\$ 92,529	29 \$	740,232
9 External Funding (In-Hand Only) 10 Other Funding (Identify)											ሉ ላ	
11 Total Current Sources		ŝ		\$ 225,959	Ŷ	451,918 \$	451,918	ŝ	451,918	\$ 225,959	\$ 65	1,807,672
Proposed New Program Sources												
12 Incremental Resident SCH				600		1,512	2,976		5,280	8,232	32	
13 Enrollment Funding Appropriation (CIP 11.0102)	\$ 386	ŝ	,	, è	ŝ	115,800 \$	407,616	Ş	866,184	\$ 1,593,408	08 \$	2,983,008
14 Resident Enrollment (FTE)				25	10	63	124	F.	220	ŵ	343	
15 Regular Resident Tuition (Annual Rate)	\$ 3,812	÷		\$ 95,300	Ŷ	240,156 \$	472,688		838,640	\$ 1,307,516	16 \$	2,954,300
16 NC Promise Appropriation (Resident)		Ŷ		\$	Ŷ	\$ '	•	ŝ		\$	Ŷ	
17 Nonresident Enrollment (FTE)				(1)	~	ъ	10	_	20		30	
18 Regular Nonresident Tuition (Annual Rate)	\$ 19,065	Ŷ		\$ 57,195	Ŷ	95,325 \$	190,650		381,300	\$ 571,950	50 \$	1,296,420
19 NC Promise Appropriation (Nonresident)		Ŷ		\$	Ŷ	۰ ک		ŝ	,	\$	Ŷ	
20 Tuition Differential (Annual Rate)	÷ -	Ŷ	,	÷	Ŷ	÷	1	ŝ		\$ '		
21 Special Fees	\$ 3,427	Ŷ		\$ 95,956	Ŷ	233,036 \$	459,218	ŝ	822,480	\$ 1,278,271	71 \$	2,888,961
22 External Funding (In-Hand Only)												
23 Other Funding (Identity)- major fees	225										- 1	189,675
24 Total New Sources		Ŷ		\$ 254,751	ŝ	699,617 \$	1,560,322	\$	2,962,604	\$ 4,835,070	70 \$	10,312,364
25 Total Proposed Program Sources		ŝ		\$ 480,710	ŝ	1,151,535 \$	2,012,240	Ş	3,414,522	\$ 5,061,029	29 \$	12,120,036
Comments		Check Goal	~	55 55	5	122 122	188 188	~ ∞	294 294	4 1	400 400	
Chief Financial Officer Name R1Chard Amon Date 03/26/2025 4:18 PM FDT												

Date 03/26/2025 | 4:18 PM EDT signature 03/26/2025 | 4:00 Puctor Provide average and the provided and the pr

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	Year 0 (Start Up)	1st Year	2nd vear	3rd Year	4th Year	5th Year	TOTALS	
Current Program Uses (if applicable)	:							
1 Tenure/Tenure-Track Faculty							Ş	
							- 1	
2 Non lenure-Irack Faculty							s	
3 Graduate Student Support							Ş	
4 Non-Faculty Positions							ş	
5 Student Support (Scholarships)							Ş	
6 Libraries							ş	
7 Supplies and Materials		10,000					\$ 1C	10,000
8 Travel, Communications, and Fixed Charges							Ş	
9 Equipment and Technology							Ş	
10 Facility Repair and Renovation							Ş	
11 Other (Identify)							Ş	
12 Total Current Uses \$	\$ -	10,000	- \$	÷ -	- \$	- \$	\$ 10	10,000
Proposed New Program Uses								
13 Tenure/Tenure-Track Faculty							Ş	
14 Non Tenure-Track Faculty		129,705	259,410	389,115	518,820	778,230	\$ 2,075,280	,280
15 Graduate Student Support		79,245	170,490	261,735	345,735	460,980	\$ 1,318,185	,185
16 Non-Faculty Positions		114,764	114,764	114,764	114,764	114,764	\$ 573	573,820
17 Student Support (Scholarships)		50,000	50,000	50,000	50,000	50,000	\$ 250	250,000
18 Libraries							Ş	
19 Supplies and Materials		5,000	5,000	5,000	5,000	5,000	ş	25,000
20 Travel, Communications, and Fixed Charges							Ş	
21 Equipment and Technology		10,000	10,000	10,000	10,000	10,000	ŝ	50,000
22 Facility Repair and Renovation							Ş	
23 Facility New Construction or Expansion							Ş	
24 Other (Identify)		64,822	122,422	180,022	266,422	352,822	\$ 986	986,511
25 Total New Uses \$	\$ -	453,536	\$ 732,086	\$ 1,010,636	\$ 1,310,741	\$ 1,771,796	\$ 5,278,796	,796
Overhead (HR, startup, IT, utilities, classroom renov/tech, etc)	etc) \$	226,768	\$ 366,043	\$ 505,318	\$ 655,371	\$ 885,898	\$ 2,639,398	,398
26 Total Proposed Program Uses	\$ '	690,304	\$ 1,098,129	\$ 1,515,954	\$ 1,966,112	\$ 2,657,694	\$ 7,928,194	,194

Comments

Chief Financial Officer Name Ri chard Amon Date 03/26/2025 | 4:18 PM EDT Signature Kuldur Minou



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

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Table of Contents

Market Pulsecheck Overview
Labor Market Intelligence
Competitive Intelligence
Research Process and Sources

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'slevel professionals declined 1.05%.

1,191 postings

Average Monthly Demand

February 2022 - January 2025, Statewide Data

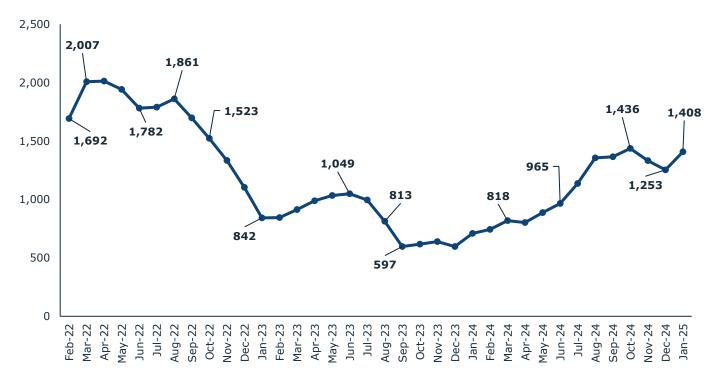
6,508 postings

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



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'slevel 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



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

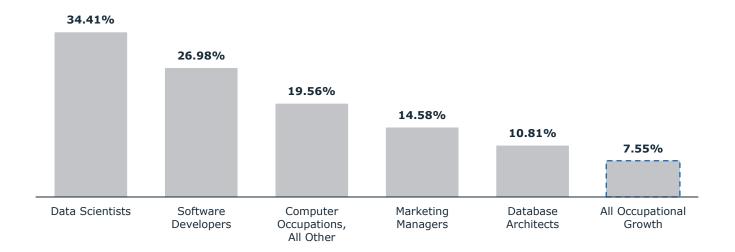
February 2024 - January 2025, Statewide Data

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 Occupations¹

2025 - 2035, Statewide Data



 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 <u>Data Scientists</u> 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.

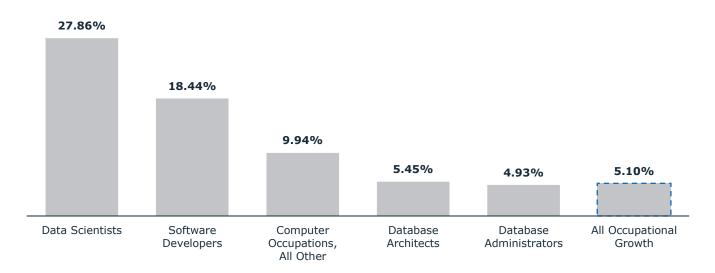
Top Occupations Across Job Postings for Bachelor's-Level Artificial Intelligence Professionals

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 Occupations¹

2025 - 2035, Regional Data

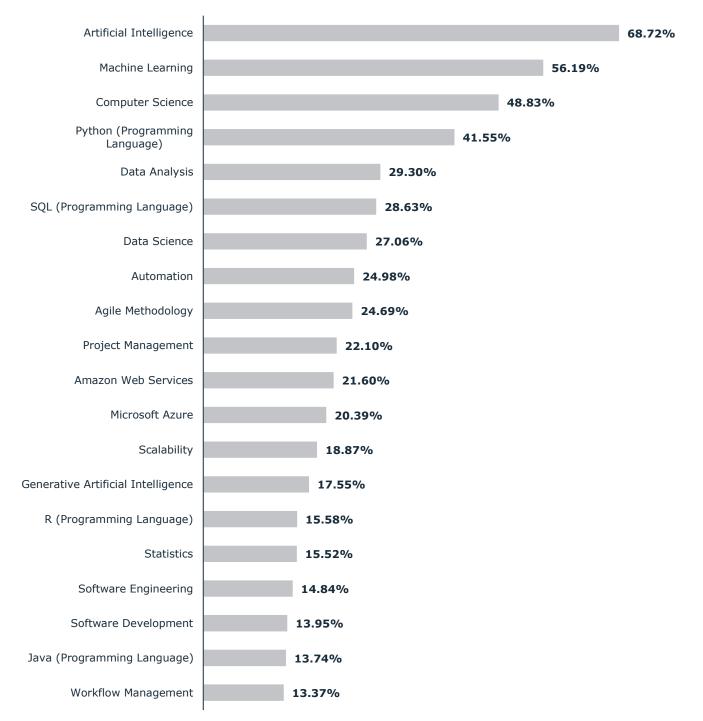


employers most often seek relevant professionals.

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

February 2024 - January 2025, Statewide Data

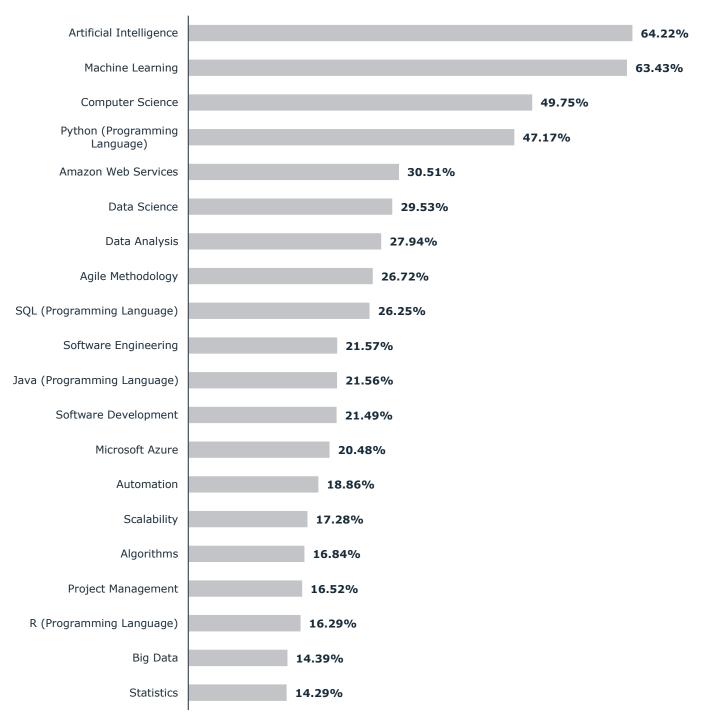
n = 6,508 job postings



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

February 2024 - January 2025, Regional Data

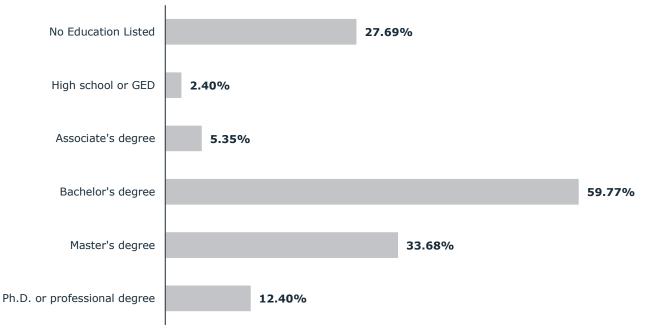
n = 28,224 job postings



Education Levels Requested of Artificial Intelligence Applicants¹

February 2024 - January 2025, Statewide Data

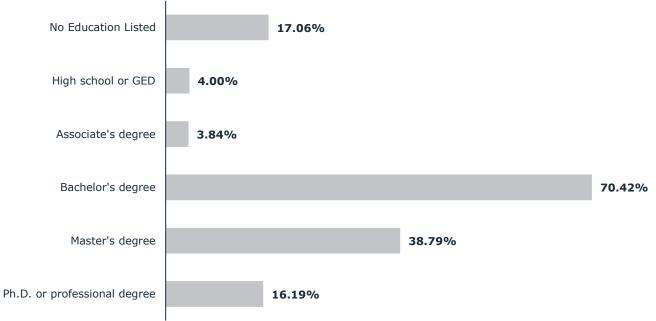
n = 10,888 job postings



Education Levels Requested of Artificial Intelligence Applicants¹

February 2024 - January 2025, Regional Data

n = 40,077 job postings



 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.

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.

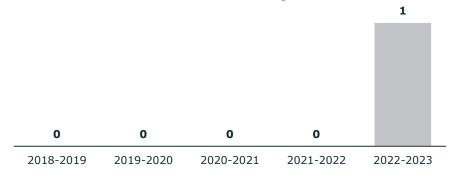
Completions Reported Over Time

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

	0	0	0	0	0
2	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023

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

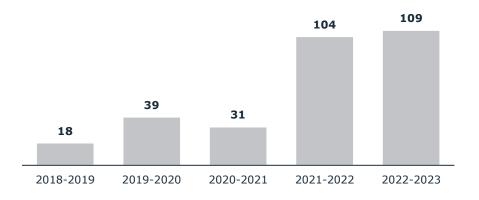
Institution	Reported Completions, 2018-2019 Academic Year	Market Share, 2018-2019 Academic Year	Reported Completions, 2022-2023 Academic Year	Market Share, 2022-2023 Academic Year	Completions Reported via Distance- Delivery, 2022- 2023 Academic Year
Marymount University	Not Offered	Not Offered	0	0.00%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

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.

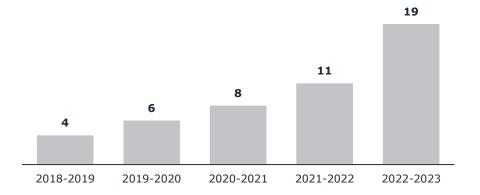
Completions Reported Over Time

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



Institutions Reporting Completions 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.

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

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.

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.

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.

(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

2

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 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:

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

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) <u>https://nces.ed.gov/ipeds/</u>

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/



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At EAB, our mission is to make education smarter and our communities stronger. We work with thousands of institutions to drive transformative change through data-driven insights and best-in-class capabilities. From kindergarten to college to career, EAB partners with leaders and practitioners to accelerate progress and drive results across five major areas: enrollment, student success, institutional strategy, data analytics, and diversity, equity, and inclusion (DEI). We work with each partner differently, tailoring our portfolio of research, technology, and marketing and enrollment solutions to meet the unique needs of every leadership team, as well as the students and employees they serve. Learn more at eab.com.