ADITYA JAIN

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RESEARCH INTERESTS

AI in Education · Applied Machine Learning in Education · Human–AI Collaboration · AI Literacy · CS Pedagogical Frameworks and Curriculum Design

EDUCATION

University of Nebraska - Lincoln Lincoln, NE
B.S., Computer Science and Mathematics, Minor: Business 2021 - 2025
GPA: 3.99 / 4.00

RESEARCH EXPERIENCE

Research Assistant Lincoln, NE
University of Nebraska – Lincoln, Raikes School Jan 2023 – Feb 2024

- Led first-author research on validating a programming-language-independent assessment of CS learning outcomes using Item Response Theory
- Conducted empirical studies on participation bias in CS classrooms, analyzing its implications for prior research and developing mitigation strategies
- Published and presented a paper at an ACM CS Ed. conference (CompEd 2023)

Researcher and Course Developer Lincoln, NE
University of Nebraska – Lincoln, Nebraska 4H Extension May 2025 – Present

- Researched AI pedagogy and curriculum design strategies to create an AI literacy module for out-of-school educators
- Designed and tested instructional materials, reflection prompts, and interactive activities to teach AI fundamentals, hands-on exploration, and ethical AI use in an online module
- Investigated effective AI content delivery methods and curriculum design for non-technical audiences with Dr. Kimberly Stanke
- Co-authored a peer-reviewed reflection and practice article on best practices, limitations, and educator feedback from the module implementation

PUBLICATIONS

Jain, A., Bockmon, R., Bourke, C., & Cooper, S. (2023). *Validating a language-independent CS1 learning outcomes assessment*. 78–83. https://doi.org/10.1145/3576882.3617910

Jain, A., & Stanke, K. (2025). *AI Foundations and Applications: A Youth Teaching Guide - UNL*. Nebraska.edu. https://advance.nebraska.edu/browse/unl/programs/ai-foundations-and-applications-a-youth-teaching-guide *(Manuscript in preparation for submission to IJSTEM)*

Bockmon, R., **Jain, A**., & Cooper, S. (2025). *The Dangers of Participation Bias in Computer Science Educational Studies*. (In Review).

TEACHING EXPERIENCE

Teaching Assistant and Course Developer Lincoln, NE
Generative AI: Applications, Ethics, and Research *(CSCE 440/880)*
University of Nebraska - Lincoln Jul 2024 – Dec 2024

- Designed and developed curriculum, lectures, and assignments for a new special topics course on Generative AI, later formalized as an official undergraduate/graduate course
- Taught lectures biweekly and weekly discussions for 27 students, covering VAEs, GANs, transformers, LLMs, applications, business case studies, security, and ethics
- Facilitated debates, graded assignments, and provided instructional support in collaboration with Dr. Seth Polsley

Teaching Assistant Lincoln, NE
Machine Learning *(RAIK 371)*
University of Nebraska - Lincoln Jan 2025 – May 2025

- Re-engineered course curriculum to integrate interdisciplinary business and entrepreneurship perspectives
- Created a semester-long final project where teams developed AI startup proposals, including MVPs, market research, and business plans
- Guest lectured monthly, created assignments, led discussions, and supported 37 students through office hours and review sessions

Teaching Assistant Lincoln, NE
Introduction to Data Science *(RAIK 270 / RAIK 370)*
University of Nebraska - Lincoln Aug 2023 – May 2024

- Wrote homework assignments, in-class activities, and review materials for 37 undergraduates in an interdisciplinary data science course
- Facilitated in-class discussions, review sessions, and office hours to support student learning

INDUSTRY EXPERIENCE

Data Scientist Lincoln, NE
ALLO Communications Jan 2025 – Aug 2026

- Designed and deployed an AI-powered knowledge base assistant using Google ADK, GCP Agent Engine, and Gradio to enable natural language queries of company documents
- Developed ML solutions including subscriber propensity modeling, voided order prediction, competitor intelligence automation, and internal AI adoption guides

Data Science Intern Omaha, NE
Fiserv, Inc. Jun 2024 – Aug 2024

- Built advance forecasting and classification models to predict production capacity and identify late production lots in real time

Data Science Intern Bloomington, IL

State Farm Insurance May 2023 – Aug 2023

- Built an anomaly detection model for time series data and analyzed cloud usage logs with AWS and Azure APIs to identify team-specific patterns

HONORS & AWARDS

Chancellor's Scholar 2025

Jeffrey S. Raikes School Core Value Award for Intellectual Curiosity 2024

SKILLS

Machine Learning, Curriculum Design, Generative AI, NLP, Assessment Validation, Teaching