

Contact Information

Krista Bair

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Portfolio:

Research Interests: Focused on the application of AI and data science to financial systems, including quantitative trading, predictive analytics, and ethical algorithm development. Seeking admission to an AI/finance graduate program focused on applied research and technical innovation.

Education

The Ohio State University, Columbus, OH 43210

Bachelor of Science in Computer Science and Engineering

Minors: Business, Mathematics

Specialization: Artificial Intelligence

Cumulative GPA: 3.25 | Dean's List (Spring 2024)

Expected Graduation: May 2027

Projects

BudgetBuddy – Personal Finance App

January 2025 – Present

- Created a budgeting tool tailored for college students, incorporating income, fixed expenses, savings goals, and emergency fund planning
- Designed a 9-step budget-building flow with real-time "Money Left" calculations and percentage-based category guidance
- Implemented progressive input prompts using JavaScript to improve user experience and enforce zero-based budgeting

SmartTrader – Predictive Stock Analytics Tool

March 2025 – Present

- Built a Python-based tool to analyze market trends and recommend buy/sell decisions using technical indicators
- Trained machine learning models (pandas, scikit-learn) to detect price movements and optimize trade timing
- Working on automating alerts and integrating predictive visualizations for user dashboards

Publications and Media

Featured in [“How the University is Helping Students in Need.”](#)

Ohio State Alumni Magazine, March 2025.

Quoted as Director of Fundraising for Buckeye Food Alliance, highlighting student essential needs and the opening of the Monda Student Resource Center.

Featured in [“Running on Empty: Food Insecurity at Ohio State and Beyond.”](#)

The Lantern, January 2025.

Provided insight on student food insecurity and stigma as a student leader at Buckeye Food Alliance; quoted throughout in an investigative feature on campus hunger.

Technical Experience

Undergraduate Research Assistant (Incoming) – ReROUT Lab | Columbus, OH
Aug 2025 – Present (Expected)

- Selected to join the ReROUT Lab, which builds cutting-edge systems for distributed computing, sustainable technology, and data-driven outreach.
- Will contribute to research in precision agriculture, data science, or sustainable computing systems under Dr. Stewart, NSF CAREER Award recipient and IEEE leader.
- Lab collaborates with Microsoft, HPE, and underserved communities to apply distributed systems research in real-world applications.

Co-Founder & Lead Developer – GateKeeper | Columbus, OH
May 2024 – Present

- Designed and built a QR-code-based property access system using HTML/CSS, JavaScript, and Zapier; deployed on Netlify
- Developed automation workflows for request approvals and real-time SMS alerts using Zapier webhooks
- Collaborated with clients to design and implement signage, streamline onboarding, and refine UI/UX
- Helped establish pricing strategy based on market research, cost structure, and user feedback

Data Science Intern - Rays Camps | Ontario, CA

May 2024 - August 2024, May 2025 - July 2025

- Analyzed operational data to forecast inventory needs using Python and Excel.
- Developed tools to optimize logistical planning for remote operations.
- Gained experience in real-world problem-solving during travel and tech disruptions.

Mobile App Developer – SEEDS Summer Program (Dandilyonn) | Remote

June 2025 – August 2025

- Selected from 100+ applicants for a 10-week mobile app development program focused on solving community-based social issues through Android technology.
- Collaborated in a 4-person team to design, prototype, and build a mobile application addressing a local sustainability challenge using Java and Android Studio.
- Received technical mentorship from industry engineers and design thinking coaching from Stanford GSB alumni.
- Engaged in weekly development sprints, user research, and final pitch presentations evaluated by software professionals.

Work Experience

Front Desk Assistant – Computer Science Advising Department | Columbus, OH
January 2024 – Present

- Supported students and faculty by managing front-desk operations for the CSE advising team in a high-traffic academic office.
- Scheduled appointments, answered departmental inquiries, and ensured smooth communication between students and advisors.
- Maintained professionalism and accuracy while handling confidential academic records and supporting CSE administrative processes.

Calculus Tutor & Peer Mentor – OSU Department of Mathematics | Columbus, OH
August 2024 - December 2024

- Tutored underrepresented students in STEM in one on one tutoring sessions.
- Developed personalized strategies for explaining complex mathematical concepts.

Technical Skills

Languages: Python, C++, Java, MATLAB, SQL, HTML, CSS, JavaScript

Tools & Platforms: Git, GitHub, Zapier, Firebase, Android Studio, Google Apps Script, Netlify

Libraries & Frameworks: Pandas, NumPy, Scikit-learn, Bootstrap

Concepts: Machine Learning, Data Structures & Algorithms, Object-Oriented Programming, Web Development, Mobile App Development, Predictive Modeling

Certifications

IBM AI Engineering Professional Certificate – Coursera (In Progress)

Covers deep learning, machine learning pipelines, and deployment with TensorFlow, scikit-learn, and Python.

Bloomberg Market Concepts (BMC) – Bloomberg (In Progress)

Covers economics, fixed income, equities, and portfolio management with Bloomberg Terminal simulations.

Google Data Analytics Certificate – Coursera (Planned)

Focused on data wrangling, SQL, spreadsheets, and R-based analysis tools.

Leadership and Service

President – Buckeye Food Alliance | Columbus, OH

- Lead Ohio State's student-run food pantry, serving 8,500+ visits annually and addressing food insecurity across campus.

Director of Fundraising – Buckeye Food Alliance

- Contributed over 250 volunteer hours and led initiatives that raised \$10,000+ in funding to expand services and improve outreach.
- Manage daily operations, strategic planning, and university partnerships; featured in *The Lantern* and *Ohio State Alumni Magazine* for advocacy and leadership.

Treasurer – Symphonic Pioneers | Columbus, OH

January 2024 – Present

- Manage the group's budget and donations while supporting performances and community outreach across Columbus.
- Coordinate and participate in music outreach trips to local homes, providing free private music lessons to underserved populations.
- Contributed to the group receiving the 2025 Community Harmonic Engagement Award for service through music education.

Music Director – Sound of Science | Columbus, OH

August 2023 – Present

- Arrange, direct, and conduct performances for a STEM-focused vocal group promoting creative expression through music.
- Coordinate rehearsals and guide musical interpretation, combining technical accuracy with artistic presentation.

Campus Involvement

Member – Girls Who Code OSU College Loop | Columbus, OH

April 2024 – Present

Built programming, leadership, and networking skills as part of a national initiative to close the gender gap in tech.

Member – Texnikoi Engineering Honorary | Columbus, OH

October 2024 – Present

Selected for academic excellence, service, and leadership in OSU's prestigious College of Engineering honorary.

Incoming Member – Scarlet Investment Group | Columbus, OH

Starting August 2025

Application-based finance and technology organization with student teams focused on software for real-time stock analysis.

Incoming Member – Buckeye Capital Investors | Columbus, OH

Starting August 2025

Selective student-run investment club offering hands-on training in equity research, portfolio management, and market strategy.

Competitions and Challenges

Retake Ardennia – RPG Game Development Challenge

CSE 1181 Final Showcase, Ohio State University | Fall 2023

- Developed a text-based RPG with animated graphics in MATLAB as part of a team-based capstone challenge.
- Designed game logic, character leveling, and combat mechanics; presented final product to professors, TAs, and professional software developers in a competitive showcase.

Awards and Honors

Community Harmonic Engagement Award – Symphonic Pioneers | May 2025

Recognized for exceptional community service through volunteer music instruction in local Columbus homes.

Ohio State Alumni Club of Tuscarawas County Scholarship – 2023, 2024, 2025

Awarded for academic merit, leadership, and service. Selected annually by alumni for active student involvement and excellence.

AultCare You Matter Scholarship – AultCare | May 2023

Awarded to one senior per school for promoting positivity and inclusiveness in school and community settings.

John Philip Sousa Award – Indian Valley High School | May 2023

Nationally recognized band honor presented to one student per year for outstanding musicianship, loyalty, and leadership.

Relevant Coursework

Artificial Intelligence & Data Science

AI Ethics, Introduction to Artificial Intelligence (Planned), Data Mining (Planned), Machine Learning (Planned)

Software & Systems

Data Structures & Algorithms, Software Development & Design, Software Components, Intro to Low-Level Programming, Intro to Operating Systems

Mathematics & Analytics

Multivariable Calculus, Linear Algebra, Statistics for Engineers, Discrete Structures, Introductory Analysis I (Planned), Differential Equations (Planned), Upper-Level Probability (Planned)

Finance & Business

Microeconomics, Intro to Accounting, Intro to Finance (Planned), Business Marketing, Human Resources, Operations Management

Hardware & Technical Foundations

Intro to Engineering, Electronics for CSE Majors

