

Arman Barraghi Zadeh

(667) 390-0247 | abarraghi@gmail.com | www.linkedin.com/in/abarraghi

Education

The University of Texas at Austin, Austin, TX

May 2027

Masters of Science in Electrical and Computer Engineering

Relevant coursework: Computer Architecture, Machine Learning Hardware-Algorithm Co-Design, Security at the Hardware/Software Interface.

Juniata College, Huntingdon, PA

May 2025

Bachelor of Science, Major: Computer Science

G.PA: 3.963/4.000, *Summa Cum Laude*

Relevant coursework: FPGA Digital Design, Electronics, Computer Science Research Sequence, Computer Organization, C++ Programming, Unix Programming, Differential Equations, Calculus Sequence, Linear Algebra, Introduction to Probability & Statistics, Programming Languages, Algorithms and Analysis, Software Models, Operating Systems, Introductory Physics Sequence.

Honors and Awards

- Barry M. Goldwater Scholarship Candidate (October 2024),
- Dale L. Wampler Award in Computer Science, Juniata College (May 2025),
- Dean's List, Juniata College (August 2020 - May 2025),
- Distinction in the Program of Emphasis, Juniata College (May 2025),
- Juniata Scholarship (Highest Merit-Based Scholarship), Juniata College (August 2020 - May 2025),
- The Tutoring Award (May 2025).

Teaching Experience

Juniata College, Huntingdon, PA

January 2025 - May 2025

Teaching Assistant for PC209 Electronics

- Assisted 12 students for theoretical and lab portions for 10 hours every week,
- Lead lectures on BJT transistors, logic gates, and microcontrollers,
- Aided with grading homework, exams, and lab reports.

Juniata College, Huntingdon, PA

August 2023 - May 2025

Computer Science, Data Science, IT and Mathematics Tutor

- Recommended amongst the highest 1% of Computer Science students to be a subject tutor,
- Promoted to tutor Data Science, IT, and Mathematics courses from August 2024,
- Courses tutored: C++ Programming, Calculus 1, Computer Science 1, Computer Science 2, Discrete Mathematics, Introduction to Data Science, Linear Algebra, Principles of Programming.

Industry Experience

Flat5 LLC, Lewistown, PA

May 2024 - November 2024

Data and IT Intern

- Performed data cleaning on over 1,000,000 United States-based records of shippers, brokers, and carriers,
- Gathered contact information of 50,000 C-Suite individuals, in logistics companies garnering over \$100,000,000 in annual revenue, utilizing the Apollo API.

Muni-Link, Bellwood, PA

January 2024 - May 2024

Software Developer Intern

- Contributed to the development of a serverless proof-of-concept for managing client account information (CRUD operations) using AWS Lambdas for a MySQL database serving 350+ clients,
- Utilized the Nuxt framework (built on Vue.js) for the front-end development,
- The project resulted in a 20% return on investment (ROI) for Muni-Link.

Juniata College, Huntingdon, PA
Technology Solutions Center Specialist

November 2023 - May 2025

- Provided immediate assistance in-person, on the phone, and online chat for 5 hours every week.

International Organization for Migration, Manila, Philippines
Front-End Developer Intern

August 2021 - February 2022

- Shadowed the I.O.M Manila Developer Team in 10 weekly virtual sprint meetings,
- Used the OpenUI5 framework to tweak 4 web applications used by 20,000 employees.

Presentations

Liberal Arts Symposium, Huntingdon, PA, April 2024. Barraghi Zadeh, Arman; Federline, Rory; Rossman, Sierra; Villatte, Amandine. "Deliver a working microservice capable of CRUD operations on a few key models that are stored in Muni-Link databases" (poster).

Liberal Arts Symposium, Huntingdon, PA, April 2025. Barraghi Zadeh, Arman. "*Doppio* - A Novel FPGA-Based Implementation of Deterministic Parallel Java (DPJ)" (presentation).

Research Experience

Juniata College, Department of Computer Science
Researcher in CS 480 & CS 485, August 2024 - April 2025
 Advisor: Dr. Gerald Kruse

Research project exploring the implementation of Deterministic Parallel Java (DPJ) on a Field Programmable Gate Array (FPGA), aiming to design the first FPGA-based architecture for DPJ by mapping parallel computing concepts directly onto reconfigurable hardware. Involving comprehensive hardware module development, and deterministic scheduling implementation, the research was presented at the Liberal Arts Symposium in April 2025.

Leadership/Service

Social Innovation Challenge

April 2024 - April 2024

- Selected along with five other students to represent Juniata College in the Entrepreneurship Leadership Council's annual *Social Innovation Challenge*,
- Lead a team of four to present "Nourish the Neighborhood", an organizational-based approach to mitigate food insecurity across college campuses.

CommunitySOS

March 2024 - March 2024

- Lead a team of five to develop CommunitySOS in Penn State's "HackPSU" hackathon, a web application to connect community members in need of help with volunteers in their vicinity,
- Awarded Peraton's "Best Web Hack Using React" prize at the event.

CarbonCompass

March 2024 - March 2024

- Chosen as the only Juniata College student to participate in UCLA's "Hack on the Hill" hackathon,
- Lead a team of four to create CarbonCompass, a greenhouse gas emission calculator for college students' common modes of transport.

Certifications

CompTIA Network+ N10-008, CompTIA
Deep Learning Specialization, DeepLearning.AI
Evolved Web Apps with SAPUI5, OpenSAP
Java Foundations, Oracle Deutschland (Office in Vienna, Austria)

July 2023
December 2021
October 2021
June 2018

References

Gerald Kruse, Professor of Computer Science, Mathematics, Data Science, and Information Technology
Research Advisor
Juniata College
(814) 641- 3595, kruse@juniata.edu

Mark Pearson, Assistant Professor of Physics and Engineering Physics
Research Mentor
Juniata College
(814) 641- 3722, pearson@juniata.edu

William Thomas, Professor of Computer Science and Information Technology
Academic Advisor
Juniata College
(814) 641- 3621, thomas@juniata.edu