

Monisha Krothapalli

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EDUCATION

University of Pennsylvania - Philadelphia, PA | Aug 2023 - May 2027 (Expected)

Bachelor of Science in Engineering (B.S.E.), Computer Science with Concentration in Artificial Intelligence

Relevant Courses: Data Structures and Algorithms, Intro to Computer Systems, Linear Algebra, Statistics, Big Data Analytics

Organizations: Women in Computer Science (Advocacy Committee)

SKILLS

Languages: Java, Rust, OCaml, Python, C++, C#, C, Assembly, HTML/JS/CSS, SQL

Frameworks/Tools: Node.js, Flask, React, WebAssembly, Figma, PyTorch, REST API

PROFESSIONAL EXPERIENCE

Quadrant Technologies | Software Engineering Intern | Redmond, WA | Jul 2024 - Aug 2024

- Built an automated software release pipeline, ensuring security and efficiency in cloud operations.
- Organized and streamlined data management processes with SQL services and designed a database schema.
- Engaged with leading experts on generative AI modules and worked on End-to-End LLM project with open-source models.

Develop For Good | Product Manager | Remote | Nov 2023 - Feb 2024

- Led a 6-developer team to design an app that recommended STEM programs to teachers, students, and parents.
- Guided team through the development process from user interviews to creating the low/hi-fidelity prototypes using Figma.
- Responsible for leading client meetings, internal team meetings, and managing the product timeline from start to finish.

Microsoft | Leap and Discovery Program Volunteer | Redmond, WA | Aug 2022 - Dec 2022

- Conducted a market research project to attract more underprivileged youth to the Leap/Discovery programs.
- Compiled and analyzed data of over 50 similar youth programs to identify areas of weakness and strength.
- Presented key suggestions for curriculum/overall program improvement to program founders and developers.

KEY PROJECTS

TextTrove | Jul 2024 - Aug 2024

Tools – Python, Flask, React, Transformers

- Developed a study tool that processes textbook PDFs to generate section summaries using HuggingFace Transformer models.
- Implemented a feature to create Q&A flashcards via the text2text generation pipeline.
- Built a RESTful API with Flask for the React frontend to interact with the backend.

MixEngine | Jun 2024 - Jul 2024

Tools – Python, Numpy, Pandas, Scikit-learn, Flask, React

- Developed a recommendation engine that generates a playlist of recommended songs based on a user-selected track.
- Utilized the Spotify API for song retrieval and user authentication to create a playlist in users' accounts.
- Implemented a content-based filtering approach using Flask to identify 20 similar songs based on genre and atmosphere.

LC4 Disassembler | Mar 2024 - Apr 2024

Tools – C, Assembly

- Created a disassembler in C that takes machine code and reverse assembles it to assembly language code.
- Took a .obj file and extracted code/data sections and translated binary to assembly code to produce a .asm file.

Brush | Jan 2023 - May 2023

Tools – Rust, HTML/JavaScript/CSS, Node.js, WebAssembly

- Developed a beginner friendly programming language to create easy digital art, called Brush, along with 4 other students.
- Used Rust in the backend to build an interpreter and compiler for the Brush syntax we designed.
- Built front end for users to practice writing code in our language and view their coded designs in real time.

Kiki | Nov 2022 - Jan 2023

Tools – C#, Game Development

- Collaborated with 4 students to develop a side-scrolling hack and slash game, featuring original artwork.
- Developed mechanics for 2 ways to defeat enemies: eating them to absorb their powers and using the powers to gain points.
- Designed progressively challenging obstacles, including gaps and jumps in the player pathway, using feedback from playtests.

LEADERSHIP EXPERIENCE

Girls Who Code Club at Tesla STEM High School | Founder and President | Sep 2020 - Jun 2023

- Taught coding languages such as C++, Python, and Java and how to build projects such as websites and apps to 15+ members.
- Hosted college panels, invited guest speakers and organized middle school coding workshops with 30+ participants.