Monisha Krothapalli

monishak@seas.upenn.edu | (425) 588-5355 | GitHub: github.com/mkro298

EDUCATION

University of Pennsylvania, School of Engineering and Applied Sciences, Philadelphia, PA ***May 2027 (Expected)***

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

Relevant Coursework: Data Structures & Algorithms, Computer Systems, Linear Algebra, Statistics, Big Data Analytics, AI Systems

Organizations: Women in Computer Science (Advocacy Committee)

TECHNICAL SKILLS

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

Frameworks/Tools: Node.js, Flask, React, WebAssembly, Figma, PyTorch, TensorFlow, REST API, PostgreSQL, Azure, Docker

RELEVANT EXPERIENCE

Quadrant Technologies, Redmond, WA

Software Engineering Intern *Jul 2024 – Aug 2024*

- Worked in a Microsoft partner company under mentorship of the Cloud and Infrastructure team.
- Organized and streamlined data management processes with SQL services and designed a database schema.
- Engaged with experts on generative AI modules and an End-to-End LLM project with open-source models.

Develop For Good, Remote

Product Manager *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 low/hi-fidelity prototypes using Figma.
- Led over 15 client meetings, internal team meetings, and managed the product timeline from start to finish.

KEY PROJECTS

TextTrove, https://github.com/mkro298/TextTrove

Tools – Python, Flask, React, Transformers *Jul 2024*

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

MixEngine, https://github.com/mkro298/MixEngine

Tools – Python, Numpy, Pandas, Scikit-learn, Flask, React *Jun 2024*

- 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 machine learning, content-based filtering algorithm to identify 20 similar songs based on sound.

Brush, https://github.com/mkro298/Brush

Tools – Rust, HTML/JavaScript/CSS, Node.js, WebAssembly *May 2023*

- Developed a programming language to simplify the creation of 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 an online IDE for users to practice writing code in our language and view their coded designs in real time.

LEADERSHIP

Girls Who Code Club at Tesla STEM High School, Redmond, WA

Founder and President *Sep 2020 - Jun 2023*

- Taught coding languages such as C++, Python, and Java and worked on building personal projects with 15+ members.
- Hosted college panels, invited guest speakers, and organized middle school coding workshops with 30+ participants.