Monisha Krothapalli

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EDUCATION

University of Pennsylvania, School of Engineering and Applied Sciences, Philadelphia, PA ***May 2027***
Candidate for Bachelor of Science in Engineering (B.S.E.) in Computer Science (Concentration in Artificial Intelligence)
***Relevant Coursework*:** Data Structures & Algorithms, Computer Systems, Databases, Linear Algebra, Data Analytics, Calculus III
***Organizations*:** Women in Computer Science (Advocacy Committee)

TECHNICAL SKILLS

Programming Languages: Java, C#, Python, SQL, C, Rust, HTML/JS/CSS, TypeScript, OCaml, C++, Assembly
Frameworks/Tools: Node.js, Flask, React.js, React Native, REST API, PostgreSQL, XCode, PyTorch, TensorFlow, Azure, AWS

PROFESSIONAL EXPERIENCE

The Daily Pennsylvanian, Philadelphia, PA
Data Engineer *Sep 2024 – Present*

- Build web-scraping automation to extract headlines and generate content pitches, increasing efficiency by 3 hrs/week.
- Optimize LLM to generate URL slugs and tags to boost online article discoverability and traffic and conduct A/B testing.
- Analyze over 20+ years of ad revenue data to optimize pricing models by incorporating factors such as holiday periods.

Quadrant Technologies, Redmond, WA
Software Engineering Intern *Jul 2024 – Aug 2024*

- Developed ETL and CI/CD pipelines with Azure services under mentorship of Infrastructure and Data Engineering teams.
- Engaged in workshops with cross-disciplinary experts focused on cloud services, DevOps, and data engineering.
- Awarded first place among internship teams for our final project, FosterLink, showcasing skills in cloud technologies.

Develop For Good, Remote
Product Manager *Nov 2023 – Feb 2024*

- Directed a team of 6 developers to design an app for our client that recommends STEM programs to students.
- Engaged directly with customers through in-depth user interviews and scoped out project requirements and timeline.
- Led 15+ client and team meetings, using client feedback to guide app improvements and prototype development.

KEY PROJECTS

FosterLink, https://github.com/mkro298/FosterLink
Tools – React, Python, Flask, MySQL, REST API

- Developed FosterLink, a site for former foster kids to support each other, with a small team and Casey Family Programs.
- Built real-time forum features such as posting, commenting, and upvoting to create a safe community space.
- Implemented security features in our relational database via encryption algorithms to protect user information.

MixEngine, https://github.com/mkro298/MixEngine
Tools – Python, Numpy, Pandas, Scikit-learn, Flask, React, REST API

- Engineered a recommendation engine that generates playlists by analyzing audio features of a user-selected track.
- Implemented a ML content-based filtering algorithm that ingests data from 1M+ tracks to recommend similar songs.
- Leveraged the Spotify API for song retrieval, user authentication, and playlist creation in users' accounts.

Convolutional Neural Network (CNN) for Image Classification, https://github.com/mkro298/imageClassification
Tools – Python, Numpy, Pandas, PyTorch

- Built a CNN in PyTorch with two convolutional blocks and fully connected layers for feature extraction from 2D images.
- Trained and tested the model on the MNIST dataset (dataset of handwritten digits), achieving an accuracy of 86.68%.

Brush, https://github.com/mkro298/Brush
Tools – Rust, HTML/JavaScript/CSS, Node.js, WebAssembly

- Designed and developed Brush, a programming language created to simplify digital art creation, with 4 other students.
- Coded an interpreter and compiler for Brush syntax in the backend using Rust and built a frontend online IDE.