Anshul Shah

Education

Purdue University: Bachelor of Science in Computer Science

August 2022 — May 2025

Concentration in Machine Learning/AI, Minor in Management

West Lafayette, Indiana

Relevant Coursework: Data Structures and Algorithms, Computer Architecture, Intro to AI, Analysis of Algorithms, Operating Systems, Database Systems, Systems Programming, Linear Algebra, Data Visualization, Data Mining and Machine Learning

Work Experience

Teaching Assistant (TA)

August 2024 - Present

Purdue Computer Science

West Lafayette, Indiana

- Led labs for CS193: Tools and CS252: Systems Programming, covering Unix/Linux, shell scripting, Git/GitHub, system calls, and socket programming.
- Held office hours and graded assignments on topics such as process management, file systems, multithreading, and debugging tools.

Research Assistant

September 2023 – May 2024

Purdue University - Mitch E. Daniels School of Business

West Lafayette, IN

- Used **NLP techniques** on a dataset of 1000+ financial articles to analyze Federal Reserve announcements and their effects on economic indicators like employment and inflation.
- Applied Python and machine learning libraries to extract insights about sentiment analysis and market reactions.

Machine Learning Intern

September 2022 - August 2023

AppUnik - AI Solutions and Predictive Models

Remote

- Developed and deployed an **LLM-based recommendation system** using fine-tuned models like GPT, delivering personalized content suggestions.
- Built end-to-end AI pipelines integrating **TensorFlow**, **PyTorch**, and **Hugging Face Transformers** for text and image-based tasks.

Software Engineering Intern

August 2022 - May 2023

Battelle - Algorithm Development for Biodetection Platform

West Lafayette, IN

- Developed **Python-based hazard detection models**, improving accuracy by **25**% while reducing false positives by 20%.
- Collaborated with cross-functional teams in an AGILE environment, ensuring timely delivery of features.

Projects

Fantasy Premier League AI Chatbot | Python, Flask, SQLite, Selenium, Pandas

Dec~2024-Jan~2025

- Built an AI chatbot recommending players using **Python** for **data processing**, **Selenium** for **web scraping**, and **SQLite** for database management.
- Designed Flask APIs and data pipelines for predictive player insights.

Personal Portfolio Website | React, CSS, IntersectionObserver API

Dec 2024

- Developed a responsive portfolio using React.js, CSS, and IntersectionObserver API to showcase projects and skills.
- Incorporated reusable **React components** for scalability.

Custom Shell Implementation | Lex, Yacc, C++

Mar 2024 – Apr 2024

- Created a Unix-like shell in C++ with piping, I/O redirection, and background processing.
- Enhanced usability with signal handling and process management.

Library Management System | Node.js/Express, React, MySQL

Feb 2024 – Apr 2024

- Developed a full-stack app using React.js, Node.js, and MySQL to manage 1,000+ records.
- Implemented secure **REST APIs** for CRUD operations.

Technical Skills

Languages: Python, Java, C++, JavaScript, SQL, NOSQL, TypeScript, R

Frameworks/Libraries: React.js, Node.js, Express.js, TensorFlow, PyTorch, Flask, Bootstrap, Pandas, NumPy,

scikit-learn

Tools: Git, Postman, Docker, Jupyter Notebook, AWS (S3, Lambda), Firebase, MongoDB, MySQL