

ANSHUL SHAH

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EDUCATION

Purdue University: Bachelor of Science in Computer Science

Concentration in Machine Learning/AI, Minor in Management

West Lafayette, IN

Aug 2022 — May 2025

WORK EXPERIENCE

Software Engineer

Sally Beauty Holdings

June 2025 – Present

- Developing and maintaining **MuleSoft APIs** for enterprise integrations across data privacy, loyalty, marketing, and HR systems—modernizing legacy BizTalk processes and improving reliability of cross-system data exchange.
- Designed, implemented, and unit-tested complete integration flows using **DataWeave**, **XML**, and **JavaScript**, handling mapping, transformation, and logging before QA deployment.
- Engineered a company-wide **API Catalog platform** with **React**, **Node.js**, and **Azure Blob Storage**, indexing 100+ assets from **MuleSoft Exchange** to centralize API discovery and reduce search time for developers.

Software Engineering Intern

Insighter – Startup

April 2025 - June 2025

- Scraped and structured **100+ city council meetings** from **eCode360** and **YouTube** using **Python**, **Selenium**, and **yt-dlp**.
- Implemented cloud-hosted automation workflows following **DevOps** principles to standardize scraper deployment.

Research Assistant

Purdue University

Sep 2023 – May 2024

- Processed **1,000+** Federal Reserve speeches via **GPT-based APIs** for summarization and sentiment classification.
- Built an **NLP microservice pipeline** using **TF-IDF**, **OpenAI Batch**, and **Pandas** to streamline policy extraction and analysis.
- Enabled economic trend analysis by classifying sentiment into **hawkish**, **dovish**, and **neutral** categories using custom confidence scoring.

Software Engineering Intern

AppUnik

Sep 2022 – Aug 2023

- Built a scalable, cloud-native backend recommendation engine using **FastAPI**, **Redis**, and **FAISS**, reducing **API latency by 40%** and improving personalization accuracy by **18%**.
- Deployed serverless **microservices** on **AWS Lambda** and **EC2**; automated CI/CD pipelines with **GitHub Actions**

Software Engineering Intern

Battelle – Biodetection Algorithms

Aug 2022 – May 2023

- Improved real-time hazard detection accuracy by **25%** using anomaly detection models developed in **Python**.
- Reduced false positive rates by **20%** through iterative validation and comparison with **ground-truth datasets**.
- Delivered production-ready modules through **Agile sprints**, deployed across **3 testing environments** for live evaluation.

PROJECTS

API Service Catalog | React, Node.js, Azure Blob, Express, Postman, MuleSoft

- Designed a centralized portal for internal APIs, fetching live specs from **MuleSoft Exchange** and synchronizing **Postman collections** stored in **Azure Blob Storage**.
- Developed interactive UI components using **React Hooks**, supporting asset search, filtering, and real-time preview of API samples.
- Implemented scalable backend services with **Node.js** and **Express**, incorporating caching and async fetch to improve data load times by **35%**.

Fantasy Premier League Assistant | Python, Flask, SQLite, Selenium

- Built a **Flask-based microservice** assistant that suggests **players**, **captain picks**, and fixture-based insights using scraped FPL data and performance metrics.
- Designed lightweight backend **REST APIs** for real-time player analytics and automated data scraping using **BeautifulSoup + Selenium**.

TECHNICAL SKILLS

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

Frameworks/Libraries: React.js, Node.js, Express, Flask, TensorFlow, PyTorch, Hugging Face, Pandas, NumPy, scikit-learn, Selenium, BeautifulSoup, GraphQL

Tools/Platforms: Git, Docker, Redis, Firebase, AWS (EC2, Lambda, S3), GitHub Actions, MySQL, SQLite, MongoDB, Postman, Jupyter, Linux, Kubernetes

Other: Teaching Assistant for CS193 (Tools), CS252 (Systems Programming), REST APIs, CI/CD, Agile, Authentication Systems, Microservices