Rushi Patel

Education

University of California Riverside

Masters of Science

September 2025 - June 2026

Riverside, California

University of California Riverside

Bachelor of Science in Computer Science

 ${\bf September~2022-June~2026}$

Riverside, California

Projects

Movie Recommender System

August 2025 - September 2025

- Streamlined data handling by merging and cleaning large datasets using Pandas and performed custom feature engineering to parse and extract relevant information from JSON-like strings.
- Architected and deployed a content-based movie recommendation system, processing 5,000+ movie metadata records using Python, Scikit-learn, and NLP.
- Engineered a full-stack ML pipeline from data preprocessing and feature engineering (text vectorization) to model serving, deploying the service on Heroku for public access.

MLOps End-to-End Production Pipeline

September 2025 - Present

- Developed a production-grade MLOps pipeline for NYC Taxi Trip Prediction, containerizing the model with Docker and orchestrating the entire workflow (training, deployment) using Prefect for reliable, scheduled retraining.
- Implemented Infrastructure as Code (IaC) via Terraform to provision cloud resources and established CI/CD with GitHub Actions for automated testing and deployment.
- Integrated MLflow for robust experiment tracking and model registry, and designed a real-time system using Prometheus/Grafana to monitor prediction drift and service health in production.

Work Experience

ITS Technical Operations Associate | Student Operator

September 2023 - Present

- Provide technical support for 15+ classrooms and event spaces, ensuring 99% uptime of AV systems (PCs, projectors, smart displays, microphones) through proactive setup and live troubleshooting.
- Resolved 100+ technical issues with an average response time of under 5 minutes, ensuring 99% uptime for AV systems across classrooms and events.
- Spearheading development of an internal AI-powered support bot (self-initiated project) projected to reduce new operator onboarding time by 40% and improve the first-time fix rate.

Mindtapp | Software engineer intern

July 2024 - Jan 2025

- Engineered and fine-tuned a personalized conversational AI (chatbot) using the Gemini API; improved user engagement and boosted the return rate by 25% through motivational feedback loops.
- Built a scalable, cross-platform notification system leveraging Google Firebase, which resulted in a measurable increase in daily user engagement and task completion consistency.
- Collaborated with product and psychology teams to integrate user-uploaded goal imagery into interactive game loops, reinforcing long-term motivation through behavioral design.

Relevant Course Work

ML/AI Frameworks: PyTorch, TensorFlow, Scikit-learn, OpenCV, NLTK, Gemini API

Relevant Coursework: Machine Learning, NLP, Data Structures & Algorithms, Operating Systems, Computer Security, Big Data Management

MLOps & Cloud: Docker, Kubernetes, MLflow, Terraform, AWS, Git/GitHub Programming

Languages: Python, C++, JavaScript Databases/Data: SQL, PostgreSQL

Leadership / Extracurricular

Rose Hackathon January 2023

Team Lead

University of California, Riverside

- Led a 4-person team to 1st place in the Sustainability track at Rose Hack (24-hour MLH hackathon).
- Developed a mental health app promoting goal awareness and sustainability using Figma for UI and JavaScript for interactivity.
- Designed a polished, user-centered frontend in Figma, improving accessibility and engagement.