

# Rishi Dave

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## EDUCATION

### University of California, Riverside

Riverside, California

B.S. in Computer Science

Expected Graduation, June 2026

- o **GPA:** 3.95/4.00, *Dean's Honor List, Chancellor's Honor List, Tau Beta Pi Honors*
- o **Related Coursework:** Data Structures & Algorithms, Discrete Structures, Machine Learning, Artificial Intelligence, Object-Oriented Programming, Statistics, Linear Algebra, Multivariable Calculus

## EXPERIENCE

### University of California, Riverside, Information Technology Services Department

Riverside, California

Data Science Fellow

June 2025 – Current

- Led the refinement of a **predictive model** utilizing CatBoostRegression to forecast course demand, enabling UCR departments to optimize course scheduling, room assignments, and time slots.
- Integrated diverse datasets including historical course enrollments, student academic plans, incoming freshman applications, and major-specific course progression (via transition graphs).
- Evaluated model performance using Mean Absolute Error (MAE) and Mean Absolute Percentage Error (MAPE), consistently achieving <15% MAPE for 95% of courses, demonstrating high predictive accuracy.

### University of California, Riverside's Computer Science Research Lab

Riverside, California

Machine Learning Research Assistant

February 2025 – Current

- Developed and trained **machine learning time series classification models** using the MiniRocket classifier across 106 UCR datasets, achieving an average accuracy of ~92%.
- Currently Implementing and benchmarking the model on an FPGA, evaluating prediction runtime against a high-performance CPU baseline and observing preliminary speedups exceeding 20x.

### Reeko Cabinets, LLC

Union City, California

Machine Learning Intern

June 2024 – Aug 2024

- Consolidated and cleaned historical sales data (100+ sources) and inventory records (1000+ cabinet pieces)
- Developed a machine learning **linear regression model** to forecast bi-monthly parts demand, improving prediction accuracy by an estimated 25% compared to prior manual methods.
- Designed the automated ordering model to maintain target surplus levels, minimizing stockout incidents

## PROJECTS

### UCR Course Scheduler

July 2025

- Engineered a student-facing, **Python-based AI chatbot** application utilizing GPT-4.0 mini, providing an interactive, conversational experience for generating optimized course schedules.
- Built a robust data backend, using **MongoDB (NoSQL database)** for course offerings and a **vector database** for semantic search on user query, facilitating **Retrieval Augmented Generation (RAG)** for contextual recommendations.
- Implemented core chatbot functionalities enabling students to input preferences, modify four-year plans, receive dynamic schedule adjustments, and access real-time substitutions for full sections.

### R'Eats AI – <https://r-eats-ai-9b7a936e9ee4.herokuapp.com/>

April 2025

- Developed a **full-stack web application** using Flask to provide personalized restaurant recommendations based on natural language user queries (e.g., cuisine, budget, ambiance) for Riverside, CA.
- Collected, cleaned, and structured data for 200 local restaurants using Yelp API and Pandas, then **fine-tuned** the GPT-3.5 Turbo LLM on 1000 curated instruction-response pairs derived from the dataset.

### Cricket T20 Analyzer

March 2025

- Executed an end-to-end data analytics project involving web scraping T20 World Cup 2022 data (Bright Data), cleaning/processing (~200 players, >50k data points) with Pandas, and building a **relational data model** in Power BI.
- Designed and deployed interactive Power BI dashboards featuring 15+ custom DAX KPIs to **visualize performance trends** and provide analytical tools supporting the identification of top players for an 'All-Star' team selection.

## SKILLS

**Programming:** Python, C++, C, SQL, Java, Swift (iOS), Javascript, HTML/CSS

**Tools:** Azure, OpenAi, Pandas, Jupyter, AWS, Splunk, Git, VSCode, MongoDB, Firebase, Django, Flask, MySQL, PowerBI