

RITI DESAI

Fremont, CA | 510-953-0450 | ritidesai03@gmail.com | [Linkedin](#) | [Portfolio](#)

SKILLS

Languages: Python, SQL, C++, R, HTML, JavaScript, CSS

Tools: Pandas, NumPy, Matplotlib, Tableau, Selenium, PyMySQL, MySQL Workbench, Scikit-learn, TensorFlow, Word2Vec, Doc2Vec, brat rapid annotation tool, BeautifulSoup, Regex, React, MongoDB, JUnit, RAG, Version Control (Git, GitHub)

Other: Machine Learning, NLP, Data Manipulation and Analysis, RAG, A/B Testing, Web Scraping, Architectural Design, Descriptive and Inferential Statistics, Problem Solving, Human-Centered Design, Efficiency, Atlassian Suite

WORK EXPERIENCE

AI ENGINEERING RESEARCH FELLOW - UCR ITS + AI Studio

June 2025 - Present

- Contribute to a Schedule Recommender to create optimized class schedules using degree plans, time preferences, and live seat data.
- Coordinate backend development using Firebase and integrating DegreeWorks, Banner, and course schedule datasets.
- Build a mobile-friendly, calendar-style interface using AI Studio with a chat-like user experience.

UCR COMPUTER SCIENCE DEPARTMENT

Riverside, CA

Undergraduate Research Assistant - Data Scientist

March 2025 – Present

- Support research on detecting AI-generated code in CS1/CS3, contributing to a SIGCSE '26 publication.
- Collect and label 1,300+ student and AI-generated C++ submissions; assist with data preprocessing and model evaluation.
- Help test ensemble classifiers (F1 = 99.5%) and validated robustness to noise in training data.

FIVE10X

Remote, CA

Technical Contractor - Product Development

January 2024 – Present

- Build ML models with Python, Scikit-learn, TensorFlow, and NLP to analyze behavior, sentiment, and campaign results.
- Design dashboards using Tableau, Matplotlib, and SQL to visualize reward impact, budget use, and feedback.
- Collaborate with engineers to deploy models, run A/B tests, and support data-driven decisions.

EDIFECS

Bellevue, WA

NLP Risk Adjustment Intern - Data Scientist

June 2024 – August 2024

- Developed a Python and HTML-based web app that reads Excel tables and creates visualizations for post-release product analysis.
- Collaborated with the ML team to create a chatbot using Llama3, Ollama, ChromaDB, and Streamlit, enabling efficient query resolution for all products and services. Designed the architecture diagram and authored documentation for the chatbot.
- Enhanced natural language processing (NLP) annotators using SQL and Regex within the UIMA framework, ensuring precise identification and extraction of key information from system-generated encounter documents.

DATA SCIENCE RESEARCH FELLOW - UCR Bourns College of Engineering

June 2023 - August 2023

- Mined medical concepts from UMLS and other sources using Python, BeautifulSoup, and Selenium to improve semantic modeling.
- Annotated clinical text with the BRAT tool to train models identifying negations and related terms in unstructured medical data.
- Improved model coverage and performance by integrating diverse data sources for broader term matching and relationship scoring.

PROJECTS

FINWISE - Personal Financial Dashboard

January 2025 - March 2025

- Built a dashboard to manage transactions, set budgets, and generate financial reports using React, Express, and MongoDB.
- Developed backend APIs, integrated MongoDB, and implemented features like user authentication and CSV export.

Technologies: React, Express, MongoDB, JUnit

BOXED SOLUTIONS - AI Container Management System

September 2024 - December 2024

- Designed an AI system for cargo ships to optimize load/unload sequences and ship balance using the A* search algorithm.
- Developed web tools to visualize cargo movements and real-time manifest updates with HTML, CSS, and JavaScript.

Technologies: A* Search Algorithm, HTML, CSS, JavaScript

EDUCATION

UNIVERSITY OF CALIFORNIA, RIVERSIDE - Bachelor of Science in Data Science

2021 - 2025

Relevant Coursework: Data Structures and Algorithms; AI/ML; Databases; Python; C++; SQL; Software Engineering