

# RITI DESAI

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## SKILLS

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**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), BigQuery

**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

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### 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.

### UCR INFORMATION TECHNOLOGY SOLUTIONS

Riverside, CA

AI Engineering Intern

June 2025 – August 2025

- Built a multi-agent Schedule Recommender with Google ADK, RAG, and BigQuery to create personalized student class schedules.
- Developed backend logic to query course data, apply prerequisite rules, and support major-specific scheduling agents.
- Designed a chat-style calendar interface in AI Studio to enhance academic planning and user experience for students.

### UCR COMPUTER SCIENCE DEPARTMENT

Riverside, CA

Undergraduate Research Assistant - Data Scientist

March 2025 – July 2025

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

### 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.

### PiLABS

Riverside, CA

Data Science Intern

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

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### 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

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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