

RUTWIK PATEL

Los Angeles, CA | (213) 913-8803 | rutwikdh@usc.edu | linkedin | github

EDUCATION

University of Southern California, Los Angeles, CA

August 2023 - May 2025*

Masters of Computer Science

GPA: 3.83/4.0

Analysis of Algorithm, Database Systems, Web Technology, NLP, Information Retrieval, MLDS

University of Mumbai, Mumbai, India

August 2019 - May 2023

Bachelor of Technology in Information Technology

GPA: 3.8/4.0

Data Structures, DBMS, Operating Systems, Machine Learning, Software Engineering, Computer Networks

EXPERIENCE

Research Assistant

February 2024 - Present

USC Marshall School of Business

Los Angeles, CA

- Scraped 10 years of SP1500 sustainability reports and performed text analysis to identify energy transition data
- Wrote JavaScript script for web scraping to obtain ISIN numbers based on organization names, and processing over 100GB+ of data and performing thorough preprocessing of energy transition documentation
- Led qualitative fact-finding initiatives, analyzing electricity generation, emissions, and budgets from government and research sources to support energy transition research for Guyana

Frontend Web Developer Intern

July 2024 - October 2024

World Salon

Remote

- Led the development of the admin dashboard from scratch, managing over 10 key features and functionalities
- Integrated Airmeet for event management, facilitating 50+ virtual events and improving user engagement
- Collaborated closely with backend developers to integrate 15+ RESTful APIs and ensure a responsive UI/UX across all devices

Software Development Engineer (SDE) Intern

May 2022 - July 2022

Smart Consultant

Mumbai, India

- Collaborated with a 4-member team to develop a full-stack web application, utilizing Python, Angular, and MongoDB, ensuring seamless integration and handling 1,000+ daily transactions
- Designed and implemented key features for a Library Management system, managing 5,000+ books and user registrations with advanced SQL-based database functionality
- Added dynamic search functionality, achieving 50% faster information retrieval, enhancing the overall user experience

ACADEMIC PROJECTS

Stock Trading Application ([Angular Website](#) and [iOS App](#))

January 2024 - April 2024

- Created a RESTful webpage with Angular and Express.js, enabling users to research stock information and make informed trading decisions, leveraging the Finnhub Stock API for real-time data with 100+ queries tested
- Crafted a responsive and intuitive user interface for webpage with Bootstrap, ng-bootstrap, Angular Material libraries and deploying application on Google Cloud Platform (GCP)
- Constructed an iOS application with Swift to complement website and testing with 20+ sample users

Leveraging BERT and RoBERTa for Fake News Detection

January 2024 - April 2024

- Utilized deep learning and machine learning models, including CNN-LSTM, BERT, and RoBERTa, to detect fake news on social media, with RoBERTa achieving highest accuracy of over 93%
- Conducted comprehensive evaluations using WELFake and Kaggle datasets with over 115,000 articles, revealing RoBERTa's superior performance with an accuracy of over 93%, precision of 94%, recall of 94%, and F1-score of 94%

TECHNICAL SKILLS

Programming Languages

Python, JavaScript, Swift Typescript, R, SQL, C

Databases

PostgreSQL, MySQL, MongoDB, Redis, Neo4j

Tools and Frameworks

HTML, CSS, Angular, React, Node.js, Express.js, Django, Salesforce

Libraries

Pandas, NumPy, Scikit-learn, Keras, TensorFlow, PyTorch, bs4, Seaborn

Utility Skills

Git, AWS, GCP, RestAPI, Jira, Linux, Selenium, Docker