Rohan S Vasudev rsvasudev@ucsd.edu |(858) 319-7590 | LinkedIn | GitHub (RohanVasudev1)| Portfolio | US Citizen|

EDUCATION

University of California San Diego **September 2022 – June 2026**

Major: Mathematics and Computer Science **(UCSD HONORS) Minor:** Data Science

Relevant courses: Data Structures, Object-Oriented Design/Programming, Discrete Math, Computer Organization/Systems Programming, Computer Architecture, Algorithms, Graph Theory, AI: Probabilistic models, Managing Diverse Teams, NLP, Stochastic Processes, Probability/Statistics

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, SQL, Java, C, C++, R, ARM Assembly, HTML/CSS
Frameworks/Libraries: SKLearn, TensorFlow, PyTorch, NodeJS, Angular, React, Selenium, FASTAPI, MatPlotLib, LangChain, NumPy, Pandas
Tools/Technologies: Docker, AWS, REST APIs, JupyterLab, MATLAB, MYSQL, Git

PROFESSIONAL EXPERIENCE

TIPTOP TECHNOLOGIES **January 2024 - Present**
Software Engineering Intern **San Francisco, CA**

- Led development of AI-based system that generates questions and grades user responses using internally developed NLP ML classification models, achieving an accuracy of over 95.4% (AGILE Development Practices)
- Developed data storage system, analyzing user responses & enabling AI-driven improvements to algorithms, increasing the consumer satisfaction rate by 34.3%
- Designed REST API endpoints for creating and updating MySQL tables, handling over 1000 requests in beta testing (Python)
- Implemented an automated script using Docker/Python to upgrade/downgrade user tiers based on monthly anniversaries
- Developed scripts to analyze GenZ engagement trends via internal news APIs, extracting popular topics and keyword frequencies to generate insights for marketing and product decisions such as personalized user feeds
- Built an NLP-driven system to analyze university transcripts to extract subject proficiency insights and enable personalized data-driven learning recommendations

University of California San Diego Research **January 2025 – Present**
Artificial Intelligence Research Intern **San Diego, CA**

- Researched LLMs' ability to maintain independent judgement in analytical tasks, examining conformity bias and aggregation methods in sequential vs parallel decision making
- Leading a team of research engineers in designing a statistical classification ML model that automatically checks if advanced AI/ML models align with the NIST AI Risk Management Framework (RMF) guidelines

PUBLICIS SAPIENT **July 2024 – August 2024**
Work Experience in Technology Solutions Team **London, England**

- Automated extraction of meteorological data from APIs (Python) to develop interactive visualizations for key metrics (e.g. temperature and geolocation), and a user-driven dashboard for city-specific weather insights
- Integrated GPT Models into a secure, local server (FASTAPI, LANGCHAIN, Python) for a chatbot to aid with workflow

LLOYDS BANKING GROUP **July 2023 – August 2023**
Data Analytics Intern **London, England**

- Improved consumer databases and predictive modeling a by 9% with SQL indexing, query optimization and partitioning
- Streamlined data mining procedures by 7%, leveraging Pandas and Selenium to update financial statistics

NOTABLE PROJECTS

MACHINE LEARNING Scalable Loan Risk Pricing and Prediction Website **January 2025 – Present**

- Developed scalable ML model for loan risk pricing, training using 500000-row dataset, achieving an accuracy of 93%
- Implemented algorithms to calculate probability of default, loss given default and exposure at default and thus, expected loss, integrating efficient data structures, parallel programming and a logistic regression model
- Created financial analytics tools using APIs, database optimizations & AWS for scalability and low latency risk assessment

Automated Football Analytics Website (Full Stack) (Repository Here**)** **November 2024**

- Designed a full stack football visualization dashboard with React and Flask, deployed on a secure AWS environment
- Made an automated data pipeline in Python to fetch API data, store in S3 and create real-time and predictive visualizations
- Developed a web app using JavaScript and React Router, optimizing navigation across 5+ data-driven pages

Artificial Intelligence Email Summarizer Chrome Extension (CalHacks) (Repository Here) **October 2024**

- Led Chrome Extension development, integrating GMAIL & OpenAI APIs to fetch emails from up to the last 7 days and generate automated summaries that are sent to the user's inbox (SDLC)
- Implemented asynchronous JavaScript functions for real-time email parsing & API communication with OAUTH 2.0
- Designed user interface using HTML, JavaScript, and CSS, achieving a 90% user satisfaction rate from early feedback
- Automated sending emails to user’s inbox with the Gmail API, processing 500+ emails in initial testing