# VISHAL RANA PAIDI

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#### **EDUCATION**

## University of California, San Diego

San Diego, California

Bachelor of Science Data Science, (Economics Minor)

2023 - Present

#### **EXPERIENCE**

### **REAN Foundation**

June 2025 - Aug 2025

AI Testing and Automation Intern

- Automated 70% of testing for healthcare conversational bots using Robot Framework.
- Applied prompt engineering techniques to validate bot responses for healthcare use cases.
- Identified edge cases and proposed bot design updates, reducing failure rates.

## VR Siddhartha College

June 2022 - Dec. 2023

Research Intern

- Analyzed data from a domestic health monitoring system that I constructed.
- Used the data for hypothesis testing, visualized the results (PanDas, Plotly).
- Collaborated with a professor, leveraging Arduino boards for system development.

#### **PROJECTS**

### Loan Analysis - Python

- Analyzed a large dataset to uncover trends in loan approvals, utilizing data wrangling, time series analysis, and statistical modeling.
- Developed an interactive visualization showcasing loan trends to derive actionable insights.

### **Bus Network Navigation - Python**

- Simulated passenger wait times using real bus arrival data, analyzing discrepancies with theoretical models like the Waiting Time Paradox.
- Developed Python-based tools to visualize transit efficiency, real-world scheduling impacts.

### **Image Identification -** Java

- Developed a KNN algorithm to display images most similar to a user-drawn input.
- Leveraged data structures and algorithm optimization techniques for image processing

### Language Models & N-Gram Text Generation - Python.

- Developed an LLM, enabling text generation through sequential word dependencies.
- Designed a sampling algorithm that constructs sentences using Markov Chain principles.

### **SKILLS**

Languages: Python, Java, SQL, C/C++ Services: MS Office, Google Suite, Tableau

Skills: Python (Pandas, Plotly, Scikit-learn, LangChain, SeaBorn), PostgresSQL, Statistical Analysis, Data Preprocessing, API Integration, ML algorithms, Prompt Engineering, Data Structures, Econometrics