Naren Ratnam

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EDUCATION

University of Florida   Gainesville, FL
Bachelor of Science in Computer Science, Minor in Statistics   *December 2025*

EXPERIENCE

Data Analyst Intern   May 2025 – August 2025
City of Gainesville   *Gainesville, FL*

- Authored a comprehensive data report analyzing the demographic, economic, and social characteristics of the immigrant population to inform city management and strategic planning
- Sourced, cleaned, and synthesized complex datasets from the U.S. Census Bureau to evaluate population growth, labor market participation, and educational attainment trends
- Analyzed key economic indicators, including immigrant-held household income, tax payments, and spending power to quantify the community's fiscal impact

Software Engineering Intern   May 2024 – August 2024
Victorian Solutions Limited

- Engineered and launched a new user authentication module using Node.js and JWT, leading to a 25% improvement in platform security and supporting over 10,000 active users.
- Collaborated with a 4-person agile team to refactor a key API endpoint, which decreased server response time by 40% and enhanced the user experience for a critical customer-facing feature.
- Developed and implemented a suite of automated tests using Jest and Cypress, increasing code coverage by 30% and reducing critical bugs in production by 15%.

Undergraduate Student Researcher   January 2022 – May 2022
University of Florida   *Gainesville, FL*

- Area of Research: C1 Upgrading (Methanol to Olefins)
- Utilized Unix to manage experimental data, analyzing it to identify key correlations between chemical reactions to improve fuel quality

SOLO PROJECTS

Custom Booking and Scheduling System | *JavaScript, React, Tailwind CSS* | Link   April 2025 – May 2025
- * Developed and deployed a full-stack, dynamic booking application for a client, enabling them to manage their availability and automate appointment scheduling.
- * Engineered a secure RESTful API to handle client bookings, prevent scheduling conflicts, and store user data in a MongoDB database.
- * Implemented an automated email notification system using Nodemailer, sending instant, customized confirmations to both the client and their customers upon booking.

Real-Time Stock Sentiment Analyzer | *Python, Flask, Tweepy, JavaScript* | Link   January 2025 – March 2025
- * Constructed an automated data pipeline in Python that ingests and sanitizes real-time tweets for specified stock tickers using the Tweepy API.
- * Implemented a sentiment analysis model using the NLTK library to score public opinion, exposing the aggregated data through a Flask REST API.
- * Designed a dynamic front-end dashboard with Chart.js to visualize sentiment trends over time, providing users with an at-a-glance view of market perception.

TECHNICAL SKILLS

Languages: JavaScript, Python, C/C++, Java, HTML, CSS, SQL, R
Frameworks: React, NextJS, Node.js, Tailwind CSS, Flask, Material-UI, FastAPI, .NET
Developer Tools: Git, GitHub, Docker, CI/CD, Linux, IDE, Shell Scripts, Tableau, PowerBI, Google Cloud Platform, VS Code