Vigneshwar Reddy Boggula

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EDUCATION

University of California, Irvine

March 2025

Bachelors of Science in Informatics, Minor in Information & Computer Science

EXPERIENCE

RAG System Developer

October 2024 - Present

Pacific Life - Sponsored Project

Irvine, CA

- Developed an AI-powered retrieval-augmented generation (RAG) chatbot for enterprise knowledge retrieval and content generation using Python, LangChain, ChromaDB, AWS services and Docker
- Implemented logic for query processing, document ingestion, chunking, and metadata tagging to prepare and structure data prior to user queries
- Engineered chat history management and optimized vector database, semantic search, and document ranking to enhance retrieval and improve response accuracy to user queries
- Integrated custom local components with AWS cloud services for improved scalability and performance
- Enhanced chatbot performance by integrating agentic AI capabilities to handle complex, multi-step tasks

Learning Assistant January - June 2024

University of California, Irvine - School of Information and Computer Science

Irvine, CA

- Conducted lab sessions to support students with Python course concepts and programming assignments
- Advised with professor on course material effectiveness and improvements based on student feedback
- Held weekly office hours to address individual student concerns and provide guidance

PROJECTS

Flick Power Dashboard | React, Typescript, CSS, ApexCharts

April - June 2024

- Created a dashboard and website to enable users to aggregate, filter, and manage smart light switch data and their accounts, for Flick Power's internal use
- Implemented the frontend using Angular, integrating it with an existing backend via API calls
- Built interactive data visualizations using ApexCharts to display real-time power-usage and trends
- Developed device communication logic to allow real-time control, notifications, and pattern detection
- Launched the website into production, now actively used by Flick Power and its users

<u>Video-Game Ecommerce Website</u> | React, JavaScript, Docker, Prisma, PostgreSQL April - June 2024

- Built a full-stack ecommerce platform, made frontend with Next.js and backend with Node.js/Express.js
- Designed a scalable PostgreSQL database, managed schema and migrations with Prisma ORM
- Containerized the application with Docker for seamless development, testing, and deployment
- Automated backend-database synchronization using Prisma Studio and Docker Compose

TECHNICAL SKILLS

Concepts: Data Structures, Algorithms, Operating Systems, Computer Organization, Network Protocols **Languages/Databases:** Python, Java, C/C++, Typescript, Javascript, HTML, CSS, SQL, Prisma

Libraries/Frameworks: React, Next.js, Node.js, Express.js

Developer Tools: Git, Docker, Postman, Visual Studio, JetBrains IDEs, Office 365, Jira, Linux, MacOS