Solvin Shrestha

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TECHNICAL SKILLS

Languages: Python, C/C++, Java, SQL (Postgres), JavaScript, R
Frameworks: React, Node.js, Flask, JUnit, FastAPI, OpenAI API, PyTorch
Developer Tools: Git, Linux, AWS (Bedrock, EC2), VS Code, Vercel, Docker

EDUCATION

University of California, Irvine   Irvine, CA
Bachelor of Science in Software Engineering, Minor in Health Informatics   *Aug. 2021 – June 2025*
- **Relevant Courses:** Data Structures, Algorithms, Intro to AI, Computer Networks, Data Management, Operating Systems, Information Retrieval, Discrete Math

EXPERIENCE

Information Technology Intern   Sep. 2024 – Present
Edwards Lifesciences   *Irvine, CA*
- Engineered three AI-powered chat systems leveraging Copilot Studio, cloud APIs (ServiceNow, OneDrive), SharePoint to enhance knowledge management and collaboration
- Integrated ServiceNow API into a chat-based Copilot Agent to provide seamless access to knowledge base articles, streamlining user support and troubleshooting
- Promoted generative AI adoption by creating user personas, a prompt library, and a guide to boost productivity

PROJECTS

Web Crawler and Search Engine | *Python, HTML/CSS, Javascript*   Mar. 2024 – June 2024
- Developed a python-based web crawler and tokenizer for ICS domains with SimHash-based deduplication
- Constructed a performant inverted index to store the tokens based on the calculation of its TF-IDF score
- Improved the search engine to handle ¿10,000 documents under of web pages with a query response time under 300ms

AI Rate My Professor Assistant | *Next.js, React, OpenAI, Pinecone*   July 2024 – Aug. 2024
- Built a recommendation assistant for professor reviews using Next.js, OpenAI, and Pinecone, integrating sentiment analysis and trend tracking for insights on ratings.
- Implemented web scraping for automated data ingestion from professor review pages, storing structured data in Pinecone for real-time querying.
- Designed an advanced search system with personalized recommendations based on user criteria, enhancing the platform's usability.
- Integrated sentiment analysis to provide historical trends and actionable insights into professor ratings over time.

AI Customer Support Chatbot | *Next.js, React, OpenAI, Vercel, Streaming, Pinecone*   Aug 2024 – Sept 2024
- Built a multi-stage AI-powered customer support chatbot using Next.js and OpenAI, progressing from static responses to dynamic LLM-driven conversations
- Integrated Retrieval-Augmented Generation (RAG) using Pinecone to enable context-aware, knowledge-based responses
- Deployed the chatbot to Vercel and AWS EC2 servers with support for real-time streaming and scalable architecture
- Utilized AWS Bedrock for secure, production-ready LLM access and implemented task-specific orchestration patterns using custom routers

Pantry Tracker | *Next.js, MaterialUI, Firebase, OpenAI*   June 2024
- Built a pantry management app using Next.js, Material UI, Firebase, and OpenAI, integrating a CI/CD pipeline for seamless deployment on Vercel.
- Implemented features for adding, deleting, updating, and searching pantry items with a user-friendly interface.
- Enhanced functionality with an AI-driven recipe suggestion system based on pantry contents, leveraging OpenAI API.
- Experimented with image classification using GCP Vertex AI and AutoML to update Firebase with classified pantry items.