Solvin Shrestha

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Technical Skills

Languages: Java, Python, C/C++, SQL, JavaScript, R
Frameworks: React, Node.js, Flask, JUnit, FastAPI, PyTorch, Pytest
Developer Tools: Git, Docker, Vercel, AWS (Bedrock, EC2), Firebase
Networking: OSPF, BGP, ISIS, OpenAPI, Linux (FRRouting, ContainerLab), Wireshark, Edgeshark
Technologies & Concepts : Agile Development, DevOps Automation, Cloud Computing, REST APIs, RAG (Retrieval Augmented Generation)

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, Advanced Computer Networks, Intro to AI, Data Management, Operating Systems, Information Retrieval, Discrete Math

Experience

Information Technology Intern Sep. 2024 – Present
Edwards Lifesciences *Irvine, CA*

- Developed three AI-powered chat systems using Copilot Studio, integrated with OneDrive, ServiceNow API, and 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

Anteater Auto Services | *React, Node.js, MongoDB, AWS EC2, REST API,* Mar 2025 – June 2025

- Developed a full-stack web platform for auto shops to manage appointments, display services, and collect customer testimonials
- Designed RESTful APIs to support user authentication, booking workflows, and review data with timestamp handling
- Deployed the application on an AWS EC2 Linux instance; integrated Google Maps API and Clerk for location and authentication services
- Engineered a responsive React.js front-end and a Node.js backend using Express and MongoDB with schema-based models

AI Rate My Professor Assistant | *React, Next.js, 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

Web Crawler and Search Engine | *Python, HTML/CSS, Javascript* Mar. 2024 – June 2024

- Built a search engine from scratch to index and retrieve tens of thousands of ICS domain pages under strict memory and runtime constraints
- Developed an inverted index with stemming (Porter), HTML tag weighting, and partial index merging to handle large-scale document sets
- Implemented Boolean and ranked retrieval with TF-IDF scoring and cosine similarity; achieved query response times consistently under 300ms
- Integrated SimHash to eliminate near-duplicate pages and improved ranking with PageRank and HITS algorithms