Akul Gopal Devali

+1 919-521-2861

akul.devali@gmail.com

LinkedIn: Akul Gopal Devali

Portfolio: akuldevali.tech

EDUCATION

North Carolina State University | *Raleigh, NC, USA*   **Aug 2024 — May 2026**

Master's in Computer Science   GPA: 3.9/4

Coursework: *Algorithms, Object oriented design and development, Networks, Cloud, Software Engineering*

Vidyavardhaka College of Engineering | *Mysuru, India*   **Aug 2018 — Jul 2022**

Bachelor of Engineering in Computer Science   CGPA: 8.39/10

EXPERIENCE

Cloud Engineering Intern | *Brane Services Pvt Ltd, Bengaluru, India*   **Aug 2022 - Feb 2023**

- Architected and managed an entire multi-tenant cloud environment for performance testing of microservices.
- Spearheaded the scripting of multiple performance gates for developer pipeline which alleviated the regression by 30%.
- Built several Jenkins CI/CD pipeline to automatically execute load tests on new deployments reducing manual efforts by 40% daily.

Full Stack Developer Intern | *Doodle Health, Mysuru, India*   **Sep 2023 - Dec 2023**

- Developed and optimized backend functionalities using technologies such as Node and Express, improving system performance and integrating APIs with MongoDB for efficient data handling.
- Migrated entire fronted to React with optimizations like lazy loading and async data retrieval.
- Incorporated Redux with memorized selectors to achieve optimum performance (upto 90%) for rendering components.

SKILLS

Languages and Tools   -   Python, Ruby, C, Java, SQL, Typescript, JavaScript, Git, TypeScript, Linux, Docker, Kubernetes, JMeter, k6.

Frameworks/Libraries   -   AWS, LangChain, Jira, React, Redux, Node, Postman, Rails, PostgreSQL, MongoDB, Next, Tailwind, Jenkins.

PROJECTS

LangChain-PDF | *LangChain, OpenAI API, LangFuse, Pinecone, Python, Flask, Redis*   **May 2025 - June 2025**

- Developed a PDF-based chatbot using LangChain, enabling retrieval-augmented generation (RAG) to answer user queries with context-aware responses based on uploaded documents.
- Redesigned LangChain's conversation retrieval chain with a custom memory module that persistently stores chat history in an SQLite database, enabling accurate multi-turn recall and session continuity.
- Integrated Pinecone as the vector database for high-performance semantic retrieval, and used OpenAI's GPT models as the core LLM for generating context-aware responses.
- Enabled token-level streaming using a custom LangChain streaming handler, providing real-time feedback in the chat UI for enhanced interactivity.
- Implemented a self-learning feedback loop with Langfuse, using user feedback to dynamically evaluate and weight different chat models, memory backends, and retrievers, improving response quality over time.

ChefGPT | *Google Gemini, Node, Express, React, Chakra UI, Firebase*   **Oct 2024 - Dec 2024**

- Developed an AI-powered recipe recommendation engine leveraging Google Gemini APIs, enabling users to discover personalized recipes based on available ingredients, reducing food waste by up to 30%.
- Designed and implemented an intelligent meal planning system, incorporating macro-nutrient tracking and dietary preferences to generate customized weekly meal plans, enhancing user convenience and health management.
- Optimized application performance, achieving blazing-fast load times through server-side caching and database indexing.

PopcornPicks | *Python, Flask, React, MongoDB, Docker, Bootstrap*   **Aug 2024 - Oct 2024**

- Engineered a full-stack solution featuring user authentication, friend-based recommendations, and an interactive dashboard for enhanced movie-tracking and social engagement.
- Designed and implemented a movie recommendation engine using collaborative filtering, enabling users to discover tailored film suggestions and share their feedback via email

ACHIEVEMENTS AND EXTRA-CURRICULAR

- AWS Certified Solution Architect and secured a specialization certificate for Architecting with Google Compute Engine.
- Active participant in the cloud chapter of Google developer Google club (GDSC). Represented my college in various hackathons and organized workshops, seminars for juniors.