Abhishek Sinha

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SUMMARY:

Full-stack web developer with near 4 years of experience in back-end, front-end, DevOps, and cloud development. Proven ability to design and deploy scalable AI-integrated applications using modern frameworks and cloud platforms. Known for agile teamwork, delivery of efficient and production-ready solutions, and continuously exploring emerging technologies to drive innovation.

SKILLS:

- **Frontend** - HTML/CSS, JavaScript, Next.js, Tailwind CSS, Angular, React.js, Typescript, Blazor, Flutter
- **Backend** - .NET , Python, C#, Linux, Bash Scripting, Design Patterns, SOLID, KISS, DRY
- **Database** - SQL, NoSQL, Redis, SQL Server, SQLite, PostgreSQL, Cosmos DB, Cassandra, Scylla
- **Agile** - Scrum, Kanban
- **DevOps, Cloud and AI** - Docker, CI/CD, Azure DevOps, Jira, Git, Azure Certified (AI-102, AZ-204, AZ-400)

EXPERIENCE:

Insight — Cloud Engineer (July 2022 – April 2024) — Cloud Engineer 2 (April 2024 – Present)

- Designed and implemented RESTful APIs and WebHooks using Python and LangChain in an Agile environment, achieving a 133% improvement in retrieval speed for RAG models, reducing response times. Additionally, integrated Redis for caching to minimize web service load and optimize Azure Index costs.
- Developed a real-time voice-enabled bot using .Net Blazor and Semantic Kernel, enhancing user interaction with a multimodal generative AI bot and increasing user satisfaction score by 62%.
- Automated the conversion of natural language to SQL queries with Python Langchain, enabling users to retrieve structured database results without manual API creation.
- Developed a system to fetch bulk emails with attachments using the Microsoft Graph API, further integrating an LLM to extract requirements, achieving 94% accuracy, closely matching human performance.
- Received commendation for promoting and effectively using AI tools within the SDLC to optimize workflows and deliver impactful solutions.

PROJECTS:

Eva Assistant
Tech Stack: Next.js, Semantic Kernel, Kernel Memory, ASP.NET, Cassandra, Redis, SignalR, Azure OpenAI, Docker

- Developed the frontend using Next.js, Tailwind CSS, NextAuth, and TypeScript.
- Developed the backend using ASP.NET Web API, Semantic Kernel, Kernel Memory, SignalR messaging service socket, and Apache Cassandra.
- Migrated database management from ADO.NET to ScyllaDB for enhanced performance and scalability. Used Redis for efficient caching solutions.
- Developed an open-source dockerized alternative to ChatGPT with Retrieval-Augmented Generation (RAG) capabilities for personalized data interaction. Implemented CI/CD pipelines for streamlined deployment.

NL2SQL - Open Source Contribution
Tech Stack: Python, Langchain, Microsoft SQL Server, Azure OpenAI

- Using Langchain and Prompt Engineering connected a large database with LLM model GPT 3.5.
- A user's natural language query is processed by OpenAI to convert it into SQL Syntax as per the database schema.
- Improved response satisfaction by adding a retrieval mechanism of the database schema to the tool, which also helped to reduce the response generation time by 80% and increase stability to 98% even when used with a hospital management sample db with millions of records.

Covin Vaccine Notifier
Tech Stack: Python, Bash Scripting, API Setu APIs

- Used API Setu publicly available government API to fetch real-time availability of vaccine shots per Indian pin code.
- Setup Telegram Bot system to pass on data received from the script to various groups using RESTful API.
- The solution addressed the irregular availability of vaccine slots, helping numerous people secure reservations during the peak demand period.

EDUCATION:

- B.Tech (Computer Science Engineering) from Amity University.
- Intermediate from DAV Public School in 2017.
- Matriculation from DAV Public School in 2015.