SAMEERAN AMARNATH

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SUMMARY

Certified full-stack/cloud/AI Software Developer-Architect consultant with 16 years experience in Ecommerce, Entertainment, Real-estate, Augmented reality, HR, IOT, Leadership training, Banking domains now seeking a full-time opportunity. I like helping organisations grow, teams excel and building reliable, fast, functional, scalable, cost-efficient solutions.

SKILLS

Languages: Python, Typescript, Javascript

Frameworks: Reactjs, Nodejs, Django, Fast API, Flask

Databases: PostgreSQL, MySQL, DynamoDB, MongoDB, Redis

Cloud: AWS, Azure

Devops: Docker, Terraform, Kubernetes

AI: Langchain, Vectordb, OpenAI, Scikit, Tensorflow

EXPERIENCE

Senior Consulting Full-Stack/Cloud/AI Developer & Architect

Coforge, New Jersey, USA | Feb 2023 - Present

- Led, Architected and developed a full-stack feature flags SDK in python, java, typescript for enabling internal teams manage feature toggling efficiently while collaborating with product, design and compliance teams to ensure business requirements were properly defined and expectations were net.
- Authored a white paper and developed a multi agent AI based full-stack app testing automation framework
- Led and worked on a functional insurance copilot using React, TypeScript, and JavaScript, integrating LangChain, Python, GPT-4, and VectorDB for seamless user experiences.

Part time product developer & architect PlugXR

(May 2023- July 2023, support till Nov 2023) San Francisco, USA

- Developed a No-Code SAAS platform with a team of 6 developers and 2 testers which enables users to create augmented & virtual reality experiences using React, Nodejs, Python, AWS.
- Achieved monthly bill reduction by 80% and peak cost reduction by 50% with 4x the performance as determined during cloud based device and browser testing using a event driven messaging based three-tier microservices architecture and enhanced application performance. Faciliated migration from Aurora RDS to a combination of (SQL) Aurora RDS Serverless and DynamoDB (No-SQL) to improve performance & reduce costs
- Worked on a generative AI model which creates 3d models by generating three.js code

Senior software development and architecture contractor

(Feb 2022- November 2022) London, UK

Datatopian

- Developed a portfolio management & visualisation solution which enables investors to add and visualise real estate asset portfolios using React, Nodejs, AWS, Python based Machine learning.
- Achieved improvement in application performance by 400 % over three months and machine-learning inference speed was improved by 100% using gpu based parallelisation

Senior software development and architecture contractor

(Nov 2021- Feb 2022)

Pune, Maharashtra

Locusnine

• Was part of a short term assignment which involved working on the backend development and architecture of a peer to peer cross border payments platform named Verto. Helped improve the design patterns and the architecture scalability blocks.

Senior software development and architecture contractor

Fanplace Las Vegas, USA

• Developed and architected the second version of a private social network with video and chat messaging for influencers and their fans using React, Nodejs, AWS managed cloud services based serverless, NOSQL architecture. I ensured that the solution will scale to any number of users while reducing costs by a factor of 40% in comparison to the existing architecture.

Senior software development and architecture consultant ${\it Mentora}$

(Feb 2020- Dec 2020) New York, USA

(Jan 2020-June 2020)

- Worked on cost and efficiency driven legacy architecture improvement of the training management system by implementing a multi-cloud architecture combining AWS and Azure which reduced costs by 60% and improved performance by 80%
- Developed a subtitles generator for the training videos catalogue using tensorflow, Python which reduced the time required by a month and automated HR lead generation process using Airtable & Python scripts which reduced lead tracking and follow-up time to seconds from days.

Software developer-architect/founder at Asrsti Self Employed

(Nov 2018-Oct 2021) Hyderabad, Dallas

- Worked with my cofounder and our team on tackling software solution development pertaining to emerging technologies (Industry 4.0) while establishing long term partnerships.
- For a solar company named Intellizon, developed and designed a computer vision based smart street pole analytics platform with a per unit price advantage of 90% in comparison to their existing solution.
- For Kynite, we developed and designed a real estate Software as a service named Realto which uses Hyperledger blockchain to tokenise properties and enables investors to fractionally invest into the same using Deep learning AI for estimating Returns on Investment and addressing Customer support for a client
- For Turing enterprises, developed and architected the second version of a private social network with video and chat messaging for influencers and their fans using React, Nodejs, AWS managed cloud services based serverless , NOSQL architecture. I ensured that the solution will scale to any number of users while reducing costs by a factor of 60% in comparison to the existing architecture.
- For Mentora a leadership training institute, worked on cost and efficiency driven legacy architecture improvement of the training management system by implementing a multi-cloud architecture combining AWS and Azure which reduced costs by 60% and improved performance by 80%

Senior software developer and architect- CTO

(July-2016 to Oct 2018) Singapore

Predator Digital

- Worked on a subscription ecommerce solution named Cadenza and helped in building the team.
- Developed an IOT based smart water can solution named Crystal Drop using python, aws,raspberry pi-4
- Developed an OCR based Data gathering solution for a legal client (react,nodejs,python, aws,Tensorflow) which eventually led to securing seed funding for the organisation.

Senior software developer and architect- CTO

(June 2013 - Apr 2016) $London. \ UK$

Wowsome

• As lead developer and architect, worked on the mobile-web versions and backend of an award winning augmented reality based social advertising app which ran 10 times faster than its competitors using offline AR & app-cloud sync techniques thereby ensuring the app would work well even in low bandwidth-high latency environments.

• Stack: html,css, android-java,ios-swift, nodejs,pubsub using Messaging Queues, firebase,Wikitude,OpenCV.

Software Engineer

(Apr 2011 – Apr 2013)

Kofax

Irvine, USA

• Worked as part of a distributed team in developing a workflow automation system which reduced onboarding time for Banking customers & new employees by 70%. Tech stack involved html,css, asp.net,ms-sql

OPEN SOURCE

Contributed to the AI & frontend enhancements of an award winning diagram as code tool (Mermaid Charts)

- Developed an AI-powered tool using LangChain, OpenAI GPT-4, and React to generate diagrams from natural language inputs, improving developer productivity.
- Helped the team improve frontend rendering and Database utilisation methods by proposing an helping them implement async and event oriented programming techniques

WHITE PAPERS

Created a Multi Agent AI Testing automation framework

- Developed a multi agent testing automation framework based on transformers architecture (generative AI, openai gpt-4o, langgraph & langchain) to automate full stack application testcase/test data generation for unit tests, e2e tests , security, reliability & performance testing.
- This was used successfully with 2 internal projects of coforge.
- $\bullet \ \ www.coforge.com/what-we-know/blog/using-llm-agent-workflows-for-improving-automating-deploying-a-reliable-full-stack-web-application-testing-process$

PROJECTS

Social streaming & chat app for creators: This application can be used by creators to stream and view live sessions, screenshares while chatting with other creators. It uses React, Nodejs, Sequelize, PostgreSQL, AWS, Redis, DynamoDB, Socket.io @ https://creatorhub-amars.up.railway.app (https://github.com/sameeranamarnath/social-chat-frontend)

Natural language to SQL: Using this application, users can post natural language queries on top of any SQL database. It uses streamlit, Langchain, Python, OpenAI GPT-4 / GPT 3.5 and works with gpt alternatives as well. (https://github.com/sameeranamarnath/natural-text-to-sql)

Youtube Q&A bot: Using this application, users can ask questions based on any Youtube video. It uses NextJS,langchain, HNSWLib based in-memory Vectordb (https://github.com/sameeranamarnath/youtubeVideoSummaryBot)

EDUCATION

Electronics & Communication Engineering, CVR University

d 2007-2011

AWARDS&ACHIEVEMENTS

- a) Developed and created an award winning self driving car prototype at CVR University
- b) Developed and created a team of soccer playing AI agents & robots which came first in IIT Robosoccer league
- c) Developed three games from scratch for Nokia QT Platform at PurpleTalk as part of internship
- d) Developed an award winning augmented reality platform as a senior Software engineer at Wowsome