Santhosh Chandrasekaran

Software Engineer | Full Stack Developer

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Summary

Results-driven Software Engineer with 3 years of experience in full-stack development, including **Python, ReactJS, AngularJS, and MySQL**, along with expertise in building **CI/CD pipelines** using **Azure DevOps, Jenkins, and AWS**.

Education

University of California, Irvine - Masters, Computer Science	**Sep 2023 - Dec 2024**
Operating Systems, Artificial Intelligence, Machine Learning, Data Structures, Advanced Algorithms	*GPA: 3.77 / 4.0*
Sri Venkateswara College of Engineering - Bachelors, Information Technology	**Aug 2016 - May 2020**
Computer Architecture, Database Management Systems, Big Data Analytics, Cloud Computing	*GPA: 4.0 / 4.0*

Technical Skills

Programming Languages: C, C++, Java, Python, JavaScript, TypeScript, PHP
Frontend Development: HTML5, CSS3, React.js, Next.js, Angular.js, Material UI, Shadcn, Bootstrap, Tailwind CSS
Backend Development: Flask, FastAPI, Node.js, Express.js, Django, GraphQL, PostgreSQL, MySQL, MongoDB, Pinecone, NoSQL
Machine Learning: TensorFlow, Keras, Langchain, Scikit-Learn, OpenCV, Tesseract, Pandas, NumPy, GAN, RAG, PyTorch, Matplotlib
Other Technologies: Docker, Microsoft Azure, AWS (S3, EC2, SageMaker, CodePipeline, CodeBuild), Jenkins, Git, JIRA, Redis

Experience

Mage Data — June 2024 - Dec 2024

Software Developer Intern - Python, TensorFlow, Keras, PyTorch, Matplotlib, PostgreSQL   *New York, USA*

- Achieved an accuracy of **83%** in generating realistic synthetic data by building a Synthetic Data Generation Model using **GANs**, improving data quality for advanced analysis.
- Improved model accuracy by integrating **Label Encoding** and **Min-Max Scaling** for efficient data pre-processing
- Utilized **PostgreSQL** to manage data retrieval and store results, enabling structured analysis of synthetic data outputs.
- Visualized demographic distribution using **Matplotlib**, creating graphs to validate and analyze the distribution against original data

Aspire Systems — Dec 2020 - July 2023

Senior Software Engineer - Java, Maven, JavaScript, ReactJS, Redux, Azure, Jenkins, MySQL   *Chennai, India*

- Delivered **10+ web and mobile features**, boosting feature usability by **75%** and improving application performance for **2M+** users.
- Streamlined application state management with **Redux**, improving performance by **30%** and ensuring seamless user interactions.
- Created modular and reusable frontend components, accelerating development cycles for new features.
- Optimized scalable and efficient backend APIs using **Java** and **Spring Boot**, integrated with **Spring Data JPA** and **Redis** for optimized database interactions and caching, handling **1M+ requests** daily and ensuring **93%** uptime for critical services.
- **Streamlined deployment workflows** by orchestrating CI/CD pipelines with **Azure DevOps** and **Jenkins**, achieving a **40%** reduction in deployment time and enabling faster product releases.
- Coordinated client-facing **Agile** meetings, driving team progress and delivering high-quality software solutions on schedule.

Temenos (Contracted by Aspire Systems) — May 2021 - Sep 2022

Software Engineer - Java, SpringBoot, JavaScript, ReactJS, REST API, MySQL, AWS   *Hyderabad, India*

- Eliminated over **200+ critical bugs** in backend and frontend systems using **Java** and **JavaScript** in multiple projects, enhancing functionality and delivering a **seamless user experience**.
- Designed Account Summary Page using **ReactJS** and **Tailwind CSS**, delivering a functional and responsive design within 2 days.
- Refined backend APIs for the **Settings Page** using **Java** and **Spring Boot**, reducing API response times by 20% and resolving critical issues like settings updates and profile data loss.
- Reduced deployment times by **40%** through automated **CI/CD** pipelines using **AWS CodePipeline, AWS CodeBuild, and AWS CodeDeploy**, ensuring faster and reliable releases across production environments.
- Accelerated the delivery of the Personal Finance Management Page, improving operational workflows and increasing client satisfaction by 25%.

Capstone Project (Sponsored by Amazon Web Service (AWS)) — Jan 2024 - June 2024

VISTA | *React.js, Python, Amazon (SageMaker, S3, EC2, SNS), Redis, RabbitMQ, Dramatiq, MUI*

- Built the UI with **React.js**, **Material UI**, and **Tailwind CSS**, enhancing user experience.
- Developed backend APIs with **FastAPI** to connect with **Amazon S3**, boosting data retrieval speed.
- Engineered a scalable video analysis pipeline using **OpenAI Whisper** for Audio Transcript and **LLaVA 1.3** for Image Frames, and Text Extraction using **OpenCV** and **Tesseract**, achieving precise transcripts and real-time deployment on **Amazon SageMaker**.
- Orchestrated task sequencing with **Redis**, **Amazon SNS**, and **Dramatiq** to automate Whisper and LLaVA 1.3 workflows.
- Increased user engagement through a chatbot built with a **RAG model** for accurate, timestamped responses.