

Sri Sai Surya Abhinav Chavatapalli

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WORK EXPERIENCE

Accenture Japan Ltd | Tokyo, Japan

March 2022 - Present

Senior Software Analyst

- **Insurance Client:** Application Developer | Mainframe Migration
 - Optimized job execution on Openframe systems by re-engineering Mainframe job scheduling and processing workflows.
 - Performed root cause analysis on daily execution logs and data analytics reports to identify and mitigate bottlenecks, overheads, and resource contention, resulting in a **15% improvement** in system efficiency.
 - Developed a custom visualization tool (**TreeViz**) to model and analyze job dependency trees using depth-first search (DFS).
- **Internal GenAI Applications:** Application Developer
 - Developed and Managed a GenAI-powered meeting assistant application that **increased meeting efficiency by 15%** by automating minutes, summaries, task assignments, and JIRA ticket generation.
 - Supervised the development of a GenAI-powered learning platform for video lectures. Enabled automated quiz generation, marking, content summarization, and query answering.

Software Analyst

- **E-Commerce Client:** Application Developer
 - Designed and built a data pipeline application to extract data from SQL server, transform it as needed, and load it into cloud storage.
 - Utilized Python for data extraction, transformation, and loading (ETL). Implemented a robust cron job scheduling to automate data ingestion at regular intervals, minimizing manual intervention and ensuring timely data availability for analysis and reporting.
- **ECommerce Client:** Application Developer
 - Build a multi-page responsive front end for the e-commerce site of a telecom client using VueJS and Typescript

PROJECTS

- **TreeViz:** Dependency Visualization Application
 - Designed and implemented a JCL dependency visualization tool using DFS and PyVis, enabling analysis of 25,000+ job networks.
 - Reduced batch processing time by 10% by identifying parallel execution opportunities, improving resource utilization on OF systems.
 - **Technologies used:** Python, PyVis, PyQT5
- **Incognito Chat:** Private AI Chatbot
 - Developed a GenAI chatbot application with a SwiftUI frontend and Python backend, using a self-hosted local LLM (Llama3).
 - Set up a self-hosted VPN with WireGuard to securely expose APIs, eliminating reliance on cloud services.
 - Extended the chatbot with real-time data fetching for context-aware responses, ensuring conversational memory retention.
 - Implemented secure communication across devices using VPN tunnelling, JWT-based authentication, and encrypted WebSockets.
 - **Technologies used:** SwiftUI, Python, FastAPI, WireGuard, WebSockets, JWT, BeautifulSoup, Requests.
- **Stock Market Screener:** Intelligent Stock Analysis Tool
 - Built a stock screening application for the Indian NSE market using Python, FastAPI, and Yahoo Finance API.
 - Integrated TensorFlow for predictive modelling and PostgreSQL for efficient data storage and retrieval.
 - Designed backend architecture for sentiment analysis by integrating real-time news and media data via web scraping.
 - **Technologies used:** Python, Streamlit
- **AI-Powered Code Review Assistant:** Automated Code Review and Suggestion Tool
 - Developed a code review assistant using Python, FastAPI, and a pre-trained LLM (GPT-3.5-turbo), providing feedback on best practices and optimization.
 - Implemented code analysis pipelines to detect inefficiencies and suggest improvements, focusing on maintainability and performance.
 - **Technologies used:** SwiftUI, Python, FastAPI, WireGuard, WebSockets, JWT, BeautifulSoup, Requests.

SKILLS

- **Software Frameworks:** VueJS, ReactJS, Redux, Bootstrap, Tailwind, MongoDB, MySQL
- **Languages:** Python, Java, Go, C, C++, SQL
- **Libraries:** Scikit-Learn, Numpy, Pandas, Matplotlib
- **Simulation Tools:** Abaqus CAE, Solid Works, Auto CAD
- **Tools/Environment:** Jupyter, MATLAB, MacOS, Ubuntu

EDUCATION

Graduation	Program	Institute	CGPA/Marks
2021	Dual Degree(BTech+MTech in Mech)	Indian Institute of Technology, Kharagpur	7.35/10