Sailu Chittala

Software Engineer | Python, FastAPI, REST APIs, React, PostgreSQL
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Summary

Computer Science undergraduate at VIT-AP University (B.Tech, graduating June 2027) and AI Software Development Intern at FOSSEE, IIT Bombay, seeking entry-level Software Engineer (SDE) roles. Builds and deploys full-stack applications with Python, FastAPI, PostgreSQL and React, backed by automated tests and CI. AWS Certified Cloud Practitioner.

Education

VIT-AP University | B.Tech in Computer Science and Engineering | CGPA: 7.94/10 | Expected June 2027
Sri Chaitanya Junior College | Class XII (Intermediate, MPC) | 86.7% | 2021 – 2023
Sri Chaitanya School | Secondary School (Class X) | 100% | 2021

Experience

AI Software Development Intern | FOSSEE, IIT Bombay | Remote | Sep 2026 – Present

- Integrated a local AI assistant (Ollama, Qwen 2.5 3B) into eSim 2.6, an open-source circuit simulator, porting the chatbot interface and application hooks from PyQt5 to PyQt6.
- Built AI-powered circuit diagnostics that analyze project netlists, explain ngspice simulation failures, flag common circuit errors and suggest troubleshooting steps.
- Implemented RAG-based documentation lookup using nomic-embed-text, embedding 78 sections of the eSim user manual to provide context-aware answers.
- Added optional AI assistant installation to the Ubuntu and Windows installers, ensuring backward compatibility and local execution through Ollama.
- Validated fresh installations across Windows 11, Ubuntu 24.04 and Ubuntu 26.04, passing 31 installation checks and the automated chatbot test suite.

Technical Skills

Languages: Python, Java, JavaScript, SQL, C
Core CS: Data Structures and Algorithms, OOP, DBMS, Operating Systems, Computer Networks
Backend: FastAPI, REST APIs, API Design, Pydantic, SQLAlchemy (ORM), JWT Authentication, bcrypt
Frontend: React, HTML, CSS, Chart.js, Responsive Design
Databases: PostgreSQL, MySQL, SQLite
Cloud: AWS (Cloud Practitioner certified), Render, Vercel, Neon PostgreSQL
Testing and Tools: pytest, Automated Testing, Debugging, Postman, Git, GitHub Actions (CI), Linux
Other: PyQt6, Ollama (Local LLMs), RAG, Google Gemini API, PySpark

Projects

AI Resume Analyzer | *FastAPI, PostgreSQL, React, Gemini API* | GitHub

- Built a full-stack web app that parses PDF and DOCX resumes (pdfplumber, python-docx) and uses the Google Gemini API to return an ATS score, a skills list and improvement suggestions.
- Added job-description matching, cover letter and interview question generation, downloadable PDF reports (jsPDF) and a per-user analysis history with Chart.js charts.
- Deployed the FastAPI backend on Render with Neon PostgreSQL and the React frontend on Vercel: 7 REST endpoints, JWT authentication with bcrypt password hashing, and 22 pytest tests covering login, uploads and per-user data isolation.

SmartExpenseTracker | *React, FastAPI, PostgreSQL, SQLAlchemy, Chart.js* | GitHub

- Built and deployed a full-stack expense tracker (React on Vercel, FastAPI on Render) with 6 REST endpoints for expense CRUD, Pydantic validation and SQLAlchemy ORM over PostgreSQL; tested the APIs with Postman.
- Structured the backend as a layered architecture (separate route, CRUD, model and schema modules) and restricted CORS so only the deployed frontend can call the API.

AI-Powered Data Analytics Platform | *PySpark, Databricks, Delta Lake, Spark SQL, Scikit-learn* | GitHub

- Built a config-driven PySpark ETL pipeline on Databricks with 7 stages (ingest to model evaluation) that cleans 50,000 synthetic e-commerce transactions and loads them into Delta Lake; runs from a CLI or notebook.

Certifications

AWS Certified Cloud Practitioner | Amazon Web Services | Sep 2025
AWS Academy Graduate: Cloud Architecting | AWS Academy | Oct 2025
Oracle AI Foundations Associate | Oracle | Sep 2025
Generative AI Fundamentals | IBM | Jun 2025