

# Akhileshwar Reddy Songala

Mountain House, CA | P: +1 281-760-6327 | asongala27@gmail.com | [Linkedin/songala](#) | [Github/AkhileshwarReddySongala](#) | [Portfolio](#)

## TECHNICAL SKILLS

**Languages:** Python, Java, C++, JavaScript, TypeScript, SQL, Bash

**Web Technologies:** React, FastAPI, Flask, Django, Spring Boot, SQLAlchemy, REST APIs

**Cloud & IaC:** AWS (VPC, EC2, S3, IAM), Terraform, Docker, Kubernetes, Distributed Systems

**Databases:** Elasticsearch, MySQL, PostgreSQL, Oracle, MongoDB

**Machine Learning & Data:** pandas, NumPy, scikit-learn, TensorFlow, PyTorch, Apache Spark, Flink, Hadoop

**CI/CD & DevOps:** Git, Jenkins, GitHub

## WORK EXPERIENCE

### CLOUDFORCE TECH

Software Engineer

Schaumburg, IL

May 2024 – Present

- Engineered scalable **Python** microservices and backend **APIs**, utilizing **Docker** and **Kubernetes** to improve application latency and reliably handle a 30% increase in daily traffic.
- Built and automated robust **AWS** infrastructure using **Terraform**, creating a resilient cloud environment for deploying and managing distributed systems and backend services.
- Established **Jenkins** CI/CD pipelines with automated testing and blue-green deployments, saving 20% of manual operations effort via custom health checks and auto-remediation scripts.

### MRF TYRES LTD

Software Engineer

Hyderabad, India

Aug 2021 – Jul 2022

- Contributed to the full-stack development of a **Business Intelligence** platform, performing comprehensive testing on both backend APIs and frontend data visualization features.
- Ensured platform reliability by designing and executing automated validation for **REST APIs**, verifying data accuracy and response integrity for real-time user-facing dashboards.
- Reduced manual QA effort by 25% by authoring **Python** scripts that performed daily automated checks on critical backend datasets, proactively identifying data anomalies.

### Bharat Dynamics Limited

Manufacturing Intern

Hyderabad, India

Jan 2021 – Jul 2021

- Manufactured casing components on a CNC turn-mill Centre, ensuring dimensional accuracy within 0.01mm tolerance.

## PROJECTS

### Saralytics - AI-Powered Business Intelligence Dashboard ([Link](#))

May 2025

- Architected and developed a full-stack, AI-driven analytics platform with a **Django** backend and a dynamic **JavaScript** frontend, featuring a responsive, glassmorphism UI with dark/light modes.
- Built a hybrid AI pipeline by integrating **Gemini 2.5 Flash (Manager Agent)** for complex reasoning and **gpt-oss-120b** via **Ollama** for local processing, reducing external **API** dependency by 50%.
- Engineered a "**Predictive Analyst**" agent using **scikit-learn** to train time-series models (**ARIMA**) on historical data, enabling natural language queries for sales forecasting (e.g., "Forecast next month's revenue").
- Developed **Text-to-SQL** Visualization Engine by building a custom "**Visualization Agent**" capable of translating plain English requests (e.g., "Show me monthly revenue trends") into an **SQL** query that can be executed with the dynamic rendering of interactive **Chart.js** visualizations in real time..
- Optimised Real-Time Interaction by integrating streaming responses for **LLM** outputs and dynamic **DOM** manipulation to provide a seamless, low-latency chat experience for users.
- Tech Stack:** Python, Django, Gemini 2.5 Flash, Ollama, scikit-learn, LLM Agents, SQL, MS Access, JavaScript, Chart.js, HTML/CSS

### Spendify – Personal Finance Management Application ([Link](#))

Nov 2024

- Developed a full-stack personal finance application using a Python/Flask backend, featuring secure user authentication with session management and password hashing.
- Engineered full CRUD functionality for managing financial transactions via a RESTful API and designed an interactive dashboard with real-time budget tracking and Chart.js visualizations.
- Built a responsive, mobile-first frontend using Tailwind CSS and Alpine.js for a modern user experience and integrated a CSV data export feature.
- Tech Stack:** Python, Flask, SQLAlchemy, JavaScript, Alpine.js, Tailwind CSS, Chart.js

### Developer Portfolio Website ([Link](#))

May 2024

- Designed and built a fully responsive personal portfolio using modern **HTML5**, **CSS3**, and **JavaScript**, deployed to **Vercel** to demonstrate a complete development-to-production workflow.
- Tech Stack:** HTML5, CSS3, JavaScript, Vercel

## EDUCATION

### LAMAR UNIVERSITY

Master of Science in Management Information Systems

Graduate Studies Award 2023

Coursework: Data Mining and Predictive Analysis, Software Engineering, Salesforce CRM, Artificial Intelligence

Beaumont, TX

May 2024

**GPA:** 4.0/4.0

### VIT UNIVERSITY

Bachelor of Technology in Mechanical Engineering

Amaravathi, India

Aug 2017 - Jul 2021