

SOMALA AJAY

Python Developer | AI/ML Engineer | Data Scientist

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PROFESSIONAL SUMMARY

Results-driven Python Developer and AI/ML Engineer with 2+ years of combined experience in data science, machine learning, and enterprise data systems. Completed 31 hands-on AI/ML projects spanning NLP, Computer Vision, Deep Learning, and Generative AI. Proficient in Python, SQL, Flask, Docker, Git, and REST APIs. Experienced in building end-to-end ML pipelines, deploying web applications, and working with large-scale data systems in professional environments. Passionate about solving real-world problems through intelligent software solutions. Actively seeking Software Developer or Data Scientist roles.

TECHNICAL SKILLS

Languages & Scripting: Python | SQL | Bash (Basics)

AI / ML & Data Science: Machine Learning | Deep Learning | NLP | Computer Vision | Generative AI | Model Training | Pandas | NumPy | Matplotlib | Scikit-learn

Backend & Web: Flask | Django (Basic) | REST APIs | API Integration | Web Scraping | Automation Scripts

Developer Tools: Git & GitHub | Docker | Linux/Bash | Cursor AI

Databases: MySQL | SQL | Data Cleaning | ETL / Data Engineering

Core Concepts: OOP | Debugging & Optimization | Prompt Engineering | GenAI Implementation

WORK EXPERIENCE

AI/ML Data Scientist (Intern) | Trylogic Soft Solutions AP Pvt. Ltd.

Oct 2023 – Jun 2024

Vijayawada, Andhra Pradesh | Government DDUGKY Scheme

Focus: End-to-End AI/ML Project Development, Data Science & Generative AI

- Designed and delivered 20+ real-world AI/ML projects covering NLP, Computer Vision, Deep Learning, Generative AI, and Flask-based web deployments.
- Built and deployed ML pipelines using Python, Scikit-learn, TensorFlow, and Keras — including classification, regression, and sequence models.
- Processed and analyzed large datasets using Pandas, NumPy, and Matplotlib for feature engineering and insight generation.
- Integrated third-party APIs (OpenAI, Spotify, YouTube, Google Translate) into Python applications and deployed via Flask/Django.
- Executed OJT (On-the-Job Training) as Assistant Trainee at Vikas Engineering College — demonstrated, explained, and provided technical support on 31 AI/ML projects to students and faculty.
- Worked with Docker environments for containerized application deployment and used Git for version control throughout all projects.

Data Operations Analyst | Tech Mahindra Ltd.

Sep 2024 – Dec 2025

Hyderabad, Telangana | Enterprise Data & Workflow Systems

Focus: Data Integrity, Systems Auditing & Enterprise Workflow Management

- Managed end-to-end data validation and quality assurance within enterprise-grade Workflow Management Systems (WFMS) and ERP platforms — ensuring 100% accuracy across high-volume operational datasets.
- Performed systematic technical audits on large-scale document datasets — identified data anomalies, inconsistencies, and errors with structured reporting and remediation.
- Executed structured data entry and processing workflows (Centralized Key Entry) with high precision in time-sensitive environments — demonstrating strong data handling discipline.
- Utilized RSA-based secure system access protocols — demonstrating awareness of enterprise security and access control standards.
- Collaborated cross-functionally to streamline workflow pipelines, reducing processing errors and improving overall data reliability for downstream operations.

KEY PROJECTS (4 OF 31)

Brain Tumor Detection System — [Python](#) | [CNN](#) | [TensorFlow](#) | [Keras](#) | [OpenCV](#) | [Medical Imaging](#)

- Built a deep learning model using Convolutional Neural Networks to detect brain tumors from MRI images with high classification accuracy.
- Implemented transfer learning techniques and image augmentation to handle limited medical datasets effectively.

Amazon Product Recommendation System — [Python](#) | [Collaborative Filtering](#) | [TensorFlow](#) | [AWS S3](#) | [Scikit-learn](#)

- Developed an e-commerce recommendation engine using collaborative filtering and matrix factorization on real product datasets.
- Integrated AWS S3 for dataset storage and built a Flask API to serve recommendations in real-time.

Image Caption Generator — [Python](#) | [CNN](#) | [LSTM](#) | [Deep Learning](#) | [NLP](#) | [COCO Dataset](#)

- Built an end-to-end image captioning system combining CNN (feature extraction) with LSTM (sequence generation) for automatic descriptive caption generation.
- Trained on MS COCO dataset — achieved coherent natural language output for unseen images.

AI Chatbot for Customer Support — [Python](#) | [NLP](#) | [NLTK](#) | [Rasa](#) | [Dialogflow](#) | [GPT-3](#) | [BERT](#)

- Designed and deployed a conversational AI chatbot using NLP techniques and GPT-3 API for e-commerce customer support automation.
- Integrated intent recognition, entity extraction, and context management for multi-turn conversations.

EDUCATION

Bachelor of Technology — Electronics & Communication Engineering

2018 – 2022

Aditya University, Surampalem, Andhra Pradesh

CERTIFICATIONS

AI Data Scientist — NASSCOM

Generative AI Introduction — Microsoft Learning

Python (Basic) — HackerRank

Python for Everybody — Coursera / HackerRank

Agile Methodology Virtual Experience — Forage

Python Bootcamp — Udemy

SOFT SKILLS & LANGUAGES

Fast Learner | Detail-Oriented | Self-Driven | Strong Work Ethic | Problem Solver | Team Collaborator

Languages: English | Hindi | Telugu