AJITHAR A

AI SOFTWARE ENGINEER

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PROFILE SUMMARY

AI Engineer with hands-on experience designing, developing, and deploying production-grade AI systems. Strong background in machine learning, deep learning, generative AI, and agentic AI, with experience building multi-agent workflows and reliable backend AI services on scalable system architectures. Experienced in translating real-world business requirements into deployable AI solutions, integrating models into APIs, and operating them in cloud environments. Proven ability to work across the full AI lifecycle, from development and integration to optimization and deployment.

EXPERIENCE

AI Software Engineer
DoubleTap Innovations and Technologies Pvt. Ltd. | Chennai, Jun 2024 – Present

- Designed, developed, and deployed production-grade AI software systems aligned with real world business requirements.
- Built and integrated machine learning, deep learning, and generative AI models into backend applications and services.
- Implemented agentic AI and multi-agent workflows to support automated decision-making and task execution.
- Developed REST-based backend APIs to expose AI models for internal and external consumption.
- Worked across the full AI lifecycle, including data preparation, model development, inference integration, and optimization.
- Collaborated with cross-functional teams to ensure system reliability, scalability, and maintainability.
- Supported cloud-based deployment of AI services and assisted in monitoring and improving model performance in production.

AI Software Intern
TabSquare InfoTech Private Limited | Chennai, April 2024 – May 2024

- Contributed to the development of AI and machine learning components for internal and client-facing applications.
- Assisted in implementing machine learning and deep learning models under senior engineer guidance.
- Performed data preprocessing, feature preparation, and model evaluation for AI use cases.
- Supported model integration into backend services and REST APIs.
- Worked across AI workflows from experimentation to deployment support.
- Collaborated with team members to debug issues, validate outputs, and improve model behavior.

Assistant Supervisor

**Lampex Electronics Limited | Chennai,
Jun 2019 – Jun 2021**

- Supervised day to day operations and ensured adherence to process and quality standards.
- Coordinated with teams to resolve operational issues and improve workflow efficiency.
- Maintained documentation and supported compliance with organizational procedures.

Junior Technician

**Tenico Private Limited | Hosur,
Jun 2018 – Jun 2019**

- Supported manufacturing and operational activities in an industrial environment.
- Followed safety, quality, and process guidelines during daily operations.

PROJECTS

Project Name

Enterprise AI Copilot with Agentic Workflow Automation

Tech Stack

Python, LLMs, LangChain, Vector Database, REST APIs, Docker, AWS/Azure

What problem it solved

- Automated knowledge retrieval and multi-step task execution by enabling an AI system to understand requests, access internal data, and interact with enterprise tools reliably.

My role

- Designed and implemented an agentic AI system with multi-agent workflows, integrated LLMs with backend APIs and internal data sources, and deployed the solution as a scalable, containerized service in the cloud.

Project Name

Medicinal Plant Identification System

Tech Stack

Python, Deep Learning, CNN, cGAN, Computer Vision

What problem it solved

- Manual identification of medicinal plants is time-consuming and error-prone, especially when plant species have similar visual characteristics. This system enabled image-based plant identification, reducing dependency on expert knowledge and improving consistency in classification.

My role

- Implemented deep learning pipelines for image-based plant identification, handled model training and validation workflows, and analyzed prediction errors to improve classification reliability under varying image conditions.

Project Name

AI-Powered Document Understanding & Intelligent Search System

Tech Stack

Python, LLMs, LangChain, Vector Database, OCR, REST API

What problem it solved

- Organizations struggle to extract structured information and insights from large volumes of unstructured documents (PDFs, contracts, reports). Manual search is slow, inconsistent, and error-prone.

My role

- Delivered an AI solution to automate document understanding and improve enterprise search workflows.

SKILLS

PROGRAMMING & BACKEND

- Python
- REST API Development
- Backend Integration

AI / MACHINE LEARNING

- Python
- REST API Development
- Backend Integration

FRAMEWORKS & TOOLS

- PyTorch
- TensorFlow / Keras
- Hugging Face Transformers
- LangGraph
- FastAPI
- Vector Search (FAISS)

EDUCATION

Bachelor of Technology - Artificial Intelligence and Data Science

Mepco Schlenk Engineering College

2021 – 2024

Diploma - Electrical and Electronics Engineering

Government Polytechnic College

2015 – 2018

CERTIFICATIONS

- Natural Language Processing – NPTEL (IIT Kharagpur)
- Data Science for Engineers – NPTEL (IIT Madras)
- Introduction to Machine Learning – NPTEL (IIT Kharagpur)

ACHIEVEMENTS

- Guided and supported junior team members in AI development tasks, contributing to effective knowledge sharing and team productivity.
- Played an active role in organizing and supporting a company product launch, coordinating with teams to ensure smooth execution.