

Aravindhan D

Generative AI Engineer | LLM & RAG Specialist

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PROFILE SUMMARY

AI Engineer with 3+ years of experience in backend development and Generative AI solutions, specializing in LLM-powered applications, conversational AI, and RAG platforms using Python and FastAPI. Experienced in Prompt Engineering, LoRA/PEFT fine-tuning, enterprise AI copilots, and scalable API development. Skilled in deploying production-ready AI systems integrated with Dynamics 365, Dataverse, and ERP environments.

KEY COMPETENCIES

- **Programming & Frameworks:** Python, FastAPI, Django, Flask, REST APIs, Async Programming, WebSockets, OOPS, Microservices Architecture
 - **Generative AI & LLM Engineering:** Large Language Models (GPT, LLaMA, Mistral), Prompt Engineering, Retrieval-Augmented Generation (RAG), LangChain, LangGraph, Hugging Face Transformers, Context Management, AI Copilot Development
 - **Machine Learning & NLP:** Scikit-learn, Pandas, NumPy, NLP, Feature Engineering, Model Training & Evaluation, LoRA, PEFT, QLoRA, Transformer Fine-Tuning, SpaCy, NLTK
 - **Agentic AI & Automation:** Multi-Agent Systems, CrewAI, AutoGPT Concepts, ReAct Agents, Workflow Automation, Conversational AI, Tool Calling & API-integrated Agents
 - **Data Science & Visualization:** Regression & Classification Models, Data Analysis, Power BI, Matplotlib, Plotly, Dashboard Development
 - **Cloud & DevOps:** Docker, Azure Cloud, On-Prem Data Gateway, API Deployment, Model Serving, CI/CD Concepts, Kubernetes (Conceptual Knowledge)
 - **Databases & Tools:** SQL Server, PostgreSQL, MySQL, Dataverse, Jupyter Notebook, Git, VS Code, Postman
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PROFESSIONAL EXPERIENCE

AI Engineer

Sharpsyssoft Technologies Pvt. Ltd. | Feb 2025 - Present

Enterprise Finance AI Copilot Implementation (Global Manufacturing Client - South Korea)

- Designed and developed an AI-driven Finance Payment Copilot integrated with Microsoft Dynamics 365 F&O vendor payable systems using Microsoft Copilot Studio.
 - Engineered a scalable Retrieval-Augmented Generation (RAG) architecture enabling contextual financial insights, KPI summaries, and intelligent payment analytics through natural language queries.
 - Implemented secure enterprise data connectivity using Dataverse, On-Premises Data Gateway, and Power Automate orchestration.
 - Improved response accuracy and query performance through optimized SQL validation, caching strategies, and structured financial data modeling.
 - Enabled finance leadership teams with real-time payment analysis and automated executive reporting capabilities.
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AI Content Automation Platform (EdTech Enterprise Client - Saudi Arabia)

- Developed AI-powered content generation pipelines using Python, GPT-4, and LangChain to automatically produce structured educational materials in PPTX, DOCX, and PDF formats.
 - Built and deployed scalable asynchronous APIs using Quart for dynamic content generation with metadata-driven workflows across multiple academic domains.
 - Designed modular AI inference components to transform subject inputs into standardized learning content using prompt engineering and document templating.
 - Optimized generation workflows, reducing execution time by 35% through prompt tuning, token optimization, and async task orchestration.
 - Containerized and deployed the platform using Docker, ensuring environment consistency with centralized logging, monitoring, and secure configuration management.
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Software Engineer

SoftLogic Systems ,Pvt Ltd | Mar 2024 - Jan 2025

AI-Based RFQ Automation & ERP Integration Platform

- Developed a Machine Learning model to predict Bill of Materials (BOM) from RFQ inputs, enabling intelligent quotation preparation and material estimation.
 - Automated quote price generation workflows, reducing quotation turnaround time by 40% and improving operational efficiency.
 - Integrated ML-driven prediction pipelines with Microsoft Dynamics 365 ERP, enabling seamless end-to-end RFQ processing and workflow automation.
 - Containerized and deployed the solution using Docker, ensuring scalable and production-ready model serving with improved performance reliability.
 - Collaborated across functional teams and mentored junior developers and interns on Machine Learning implementation and data science best practices.
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Software Engineer (Python Backend & Data Analytics)

lelektron Technologies Pvt. Ltd. | Jun 2022 - May 2023

Advanced Analytics Platform Development (Automotive R&D Client - Bengaluru)

- Designed and developed scalable backend APIs using Python, Django, and Pandas to support an advanced analytics platform for processing and analyzing ADAS engineering data.
 - Enabled dynamic data filtering, aggregation, and visualization capabilities to provide actionable insights for engineering and validation teams.
 - Collaborated closely with frontend teams to ensure seamless API integration and efficient data delivery across visualization modules.
 - Developed customizable analytical dashboards and reporting components using Matplotlib and Power BI for enhanced data interpretation.
 - Refactored and optimized legacy codebase by eliminating nearly 30% redundant logic, significantly improving system performance, maintainability, and processing efficiency.
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JR Service Executive (Network Operations Engineer) Tata Communications Ltd. | Nov 2021 - Feb 2022

- Supported enterprise network monitoring and troubleshooting.
 - Performed incident analysis ensuring service availability.
 - Maintained SLA compliance with technical teams
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Education

- Rajalakshmi Institute of Technology, Chennai **Aug 2017-May 2021**
- Bachelors of Engineering in Electronics and Communication Engineering