

# Dhilip S

Email — +91 6383747528 — Coimbatore  
LinkedIn — GitHub — Portfolio — Medium — Upwork — Linktree

## Experience

Apprentice	October 2024 – Present
KGiSL	Coimbatore, India
– <b>Prediction Analysis and Classification Models:</b> Designed and deployed forecasting and classification models, improving prediction accuracy by 15% across business workflows.	
– <b>Computer Vision Applications:</b> Built object detection and matching systems, automating visual recognition tasks and reducing manual review time by 40%.	
– <b>Model Training and Fine-tuning:</b> Customized and fine-tuned pre-trained models for domain-specific datasets, boosting performance and precision for client solutions.	
– <b>RAG and Agentic RAG Architectures:</b> Developed intelligent retrieval-augmented generation pipelines for context-aware query answering, improving response relevance.	
– <b>Entity Recognition Systems:</b> Implemented NLP-based pipelines to extract structured entities from large-scale unstructured text datasets.	
– <b>OCR for Document Intelligence:</b> Engineered OCR solutions for structured, unstructured, and handwritten documents, achieving up to 90% extraction accuracy and streamlining document processing.	

## Education

KGiSL Institute of Technology	2020 – 2024
B.E. Electronics and Communication Engineering (ECE)	CGPA: 7.92

## Projects

Permit Management Portal	July 2025 – Present
KGiSL	Developer
– <b>Form Development:</b> Designed and implemented Permit, Extension, and Closure forms in Power Pages with role-based access for Users, Approvers, and Admins, reducing form creation time by 50%.	
– <b>Process Automation:</b> Integrated Power Automate flows to trigger actions for data retrieval, submission, and updates in SharePoint lists, cutting manual intervention by 65%.	
– <b>Data Management:</b> Configured SharePoint lists as the backend for storing permit requests, approvals, extensions, and closure details, ensuring <b>99% data consistency</b> across workflows.	
– <b>User Experience:</b> Enabled pre-populated fields and automated workflows to reduce manual input, increasing submission accuracy by <b>80%</b> and reducing user effort by 40%.	
– <b>End-to-End Workflow:</b> Established a complete lifecycle for permit requests—from creation to approval, extension, and closure—improving process transparency and traceability by 70%.	

Finance Agent - Agentic RAG Application	June 2025 – June 2025
KGiSL	Developer

– <b>Agentic RAG Development:</b> Built an AI-powered retrieval-augmented generation application using LangGraph, LM Studio, ChromaDB, and Streamlit for finance-related document querying, reducing manual lookup time by 70%.	
– <b>Dynamic Vendor Table Selection:</b> Implemented logic to automatically select vendor-specific tables in ChromaDB based on vendor names extracted from user queries, improving query accuracy by <b>85%</b> .	
– <b>Contextual Document Retrieval:</b> Developed intelligent filtering to retrieve only vendor-specific documents, achieving a <b>90% precision rate</b> in returned results.	
– <b>No-Content Handling:</b> Integrated fallback mechanism to detect non-relevant queries and respond with “No content is found”, ensuring <b>100% system reliability</b> in ambiguous scenarios.	
– <b>LLM Integration with LM Studio:</b> Connected the application to locally hosted LLMs via LM Studio, lowering external API costs by <b>100%</b> and improving response latency by 40%.	
– <b>Streamlit-based Interactive UI:</b> Designed an intuitive interface enabling users to upload multiple vendor SOW files and interact seamlessly with the AI system, increasing user adoption by 60%.	

- **Real-time AI Chatbot Development:** Created an AI-powered chatbot using GPT-4, integrating multiple APIs to enable dynamic responses, resulting in a 25% reduction in response time.
- **Multi-LLM Integration:** Enhanced query precision by 30% by combining LLMs such as Mistral and GPT-4 with diverse API services.
- **LangChain-powered Workflow:** Leveraged LangChain to streamline LLM application development, reducing development time and improving system performance.
- **Vector Database Implementation:** Deployed the AztraCore vector database to boost query understanding and retrieval efficiency.
- **Dynamic User Interface Design:** Built an interactive and responsive interface using HTML, CSS, JavaScript, and Flask to improve user experience.

## Technical Skills

---

**Programming Languages:** Python, HTML, CSS, Javascript, SQL

**Technologies:** Machine Learning [Transformers, Torch], Artificial Intelligence (AI) [Generative AI, Agentic AI], Frameworks [LangChain, LangGraph, Haystack], Large Language Models (LLM) [Mistral, Llama, Deepseek], Natural Language Processing (NLP) [Text Classification (Technical and Non-Technical Classification), Sentiment Analysis (Positive and Negative Classification)], Retrieval-Augmented Generation (RAG), Flask, Firebase, Supabase, SQLite3, YOLO, Data Annotation, GitHub Models, MongoDB, PostgreSQL, SQL, Robotic Process Automation (RPA), Power Platform [Microsoft Power Pages, Microsoft Power Automate], Linux, Cloud Deployment [Google Cloud Platform (GCP)], Vector Databases [Chroma DB, PgVector, Mongo DB Atlas], Git, GitHub, Microsoft Office

**Tools:** Visual Studio Code, Python IDE, Google Colab, Kaggle, Roboflow, LabelImg, Hugging Face, LM Studio, Ollama, UiPath

## Achievements

---

**Hackathon Participation:** Participated in Honeywell India Youth Teckathon - 2023 and HACK-A-BOT Hackathon - 2023.

**Winner in UiPath Skill-A-Thon:** Won the UiPath Citizen Developer SKILL-A-THON, 2022.

**Media Publications:** Published articles in leading newspapers like The Times of India on April 12, 2023, and The Hindu on March 21, 2023.

**Top 2 in Mixed Signal SoC Design Marathon:** Ranked Top 2 in Mixed Signal SoC Design Marathon Using eSim and SKY130, 2022.

**Top 4 in Mixed Signal Circuit Design:** Ranked Top 4 in Mixed Signal Circuit Design and Simulation Marathon Using eSim, 2022.

## Certifications

---

**Agentic AI:** Earned dual certifications from Hugging Face's Agents Course, gaining hands-on expertise in agent fundamentals, frameworks, RAG integration, observability, and end-to-end deployment of autonomous AI systems.

**Artificial Intelligence (AI) and Machine Learning (ML):** Certified in ChatGPT for Everyone from Guvi, IBM AI Engineering, IBM AI Foundations for Business, Career Essentials in Generative AI by Microsoft and LinkedIn, AI for India 2.0 from Guvi.

**Programming and Development:** Certified in various programming languages and electronics courses through Coursera.

**Robotic Process Automation (RPA):** Certified in UiPath Community Certification Framework – Agentic Automation Associate and multiple UiPath specialization programs covering Agentic Automation, Autopilot, Maestro, and Test Cloud.

**Guinness World Record Participation:** Part of the Guinness World Record Event "AI for India 1.0" from Guvi.

## Languages Known

---

**English:** Read/Speak/Write

**Tamil:** Read/Speak/Write