PHILIP SIMON DEROCK

philipsimonderock@gmail.com | +91 8300057632 | Linkedin | GitHub

AI (Artificial Intelligence), ML (Machine Learning), and Gen AI developer skilled in building scalable AI solutions, LLM fine-tuning and AI agent workflows using n8n. Experienced with LangChain, Ollama, Hugging Face, vector DBs, and RAG for production-ready AI systems.

EDUCATION

KARUNYA UNIVERSITY
B.TECH IN ARTIFICIAL INTELLIGENCE AND DATA SCIENCE
May 2025 | Coimbatore, TamilNadu

ST. ANTONY'S HR.SEC.
HIGHER SECONDARY SCHOOL
May 2021 | Nagapattinam, TamilNadu

DON BOSCO MAT.HR.SEC.
SECONDARY SCHOOL
May 2019 | Thanjavur, TamilNadu

LINKS

LinkedIn
GitHub
Hugging Face
Replit
Mail

SKILLS

- **Python • Scikit-learn • NumPy • Pandas**
- **Transformers • NLTK • Hugging Face**
- **n8n • RAG • Ollama (Local LLM Hosting)**
- **LangChain • ChromaDB • Pinecone**
- **Java • Spring Boot (Basics) • JDBC • SQL**
- **Excel • Power BI • Git & GitHub**
- **Linux • Object-Oriented Programming**
- **GCP • System Design (Basics)**

LLM TOOLS

- **Google AI Studio (Gemini) • OpenAI • Claude**
- **Mistral • Groq • OpenRouter**
- **Multi-Agent Workflows • Cursor • Windsurf**
- **Prompt Engineering • System Prompt Design**
- **Local Hosting & Optimization**
- **LLM API Integration**

LANGUAGES

English (Proficient)
Tamil (Native)

EXPERIENCE

CISCO | CYBERSECURITY INTERNSHIP
May 2023 - Aug 2023

- Completed training in Cybersecurity Essentials and Network Security Fundamentals.
- Gained hands-on experience in securing networks and identifying vulnerabilities.

EDUNET & AICTE | ARTIFICIAL INTELLIGENCE AND DATA ANALYTICS WITH A FOCUS ON GREEN SKILLS INTERNSHIP
Nov 2024 - Dec 2024

- worked on a project titled Healthcare Prediction on Diabetic Patients using Python.
- Applied AI-driven feature engineering and statistical modeling to optimize predictive healthcare diagnostics.

CODINGJR | AI RESEARCH INTERN
Apr 2025 - Present

- Building an AI copilot that assists developers in writing cleaner, faster code.

IISPPR | AI AGENT INTERNSHIP
Jun 2025 - Present

- Developing cutting-edge AI agent architectures that enable real-time collaboration.

PROJECTS

ADVANCED GENERATIVE AI SERVER FOR EFFICIENT AI DEPLOYMNET | *Ubuntu Server, Python, Ollama AI, Langchain, DeepSeek, Llama3, Qwen, Gemma, RAG*

- Fine-tuned **DeepSeek** & **Llama3 Ollama AI** models for enhanced **contextual** understanding using **LangChain**, integrating **RAG** architecture, **vector-based similarity search** & **conversational memory** systems.
- Built self-hosted Generative AI server on Ubuntu Server (running on an old laptop) Streamlit, DB-backed **chat history**, **Google Cloud** deployment, **local domain (myai.dev:8501)** leveraging **deep research** & **web search** for enhanced AI inference.

EMAIL CLASSIFICATION API USING MACHINE LEARNING | *Python, Scikit-learn, FastAPI, TF-IDF, Naive Bayes, Regex, Hugging Face*

- Built a **real-time email classification** system with Naive Bayes & deployed it as a **FastAPI** based **REST** service on **Hugging Face Spaces** for automated support ticket processing

SHIPPING CONTAINER SLOT OPTIMIZER | *Java, Spring Boot, Maven, REST API, GC*

- Built a scalable, low-latency **API** in **Java 23** with Spring Boot and G1 GC, using scoring algorithms for efficient container slot allocation in high-throughput systems

COMPUTER VISION BASED FOOTBALL PLAYER DETECTION AND TRACKING SYSTEM | *CNN, Python, PyTorch, YOLOv5, OpenCV, Kalman Filter, scikit-learn*

- Built automated **multi-object tracking** system with **YOLOv5** & **CNNs** for real-time **player detection** & **re-identification**. Deployed Hungarian optimization & Kalman filtering to solve occlusion challenges & achieve robust performance in complex video analysis.

MULTI-AGENT RAG-BASED QA SYSTEM FOR DOCUMENT UNDERSTANDING VIA MCP | *RAG, Python, ChromaDB, Gemini API, Streamlit, Hugging Face*

- Built enterprise-grade **Agentic RAG chatbot** using **Model Context Protocol** with multi agents for document ingestion, ChromaDB vector storage, and Google Gemini API integration for multi-format **document Q&A** via Streamlit.

BUSINESS DOCUMENT PROCESSING WORKFLOW WITH N8N | *n8n, Mistral API, Google Cloud Google Drive API, Google Docs API*

- Built an AI-powered document workflow in **n8n** to extract and summarize business documents using Google Drive triggers and the **Mistral API**.

CERTIFICATIONS & COURSES

From data to insights with Google Cloud Specialization (Google, Coursera)
Data Science Training (Internshala)
Data Visualization & Pandas (Kaggle)
Data Visualization: Empowering Business with Effective Insights (Tata)
CyberSecurity Essentials (Cisco)