Dhanush Aravind

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linkedin.com/in/dhanush-aravind | github.com/dhanusharavinda | Portfolio

Professional Summary

AI engineering and automation practitioner with experience at Planet building internal AI agents, automating Level 1 (L1) support tasks, and integrating Microsoft APIs in a payments environment. Experience delivering production AI applications, agentic workflows, operational monitoring, and AI adoption reporting. Skilled in Python, SQL, LangGraph, Power Automate, and the software development lifecycle (SDLC), with a focus on reliable internal tools, engineering productivity, and clear technical documentation. Authorized to work in Ireland.

Technical Skills

AI Engineering: Python, LLM Applications, AI Agents, LangGraph, Multi-Agent Orchestration, Agentic Design Patterns, Retrieval-Augmented Generation (RAG), Model Context Protocol (MCP), Prompt Engineering, OpenAI API, Claude API
AI-Assisted Development: Cursor, Claude Code, Microsoft Copilot
Automation and Integration: Power Automate, Microsoft Graph API, Jira Service Management APIs, n8n, Workflow Automation, Hermes, OpenClaw
Data and Analytics: SQL, Power BI, Excel, Pandas, Databricks, Microsoft Fabric, Airflow, PostgreSQL, pgvector
Engineering and Governance: SDLC, Git, Docker, AWS, Datadog, Windows, Linux, Production Monitoring, Root Cause Analysis, AI Compliance, Role-Based Access Control (RBAC), Data Quality, Technical Documentation, OneNote, SharePoint

Work Experience

AI Engineer Sep 2026 – Present
Planet *Galway, Ireland | Hybrid*

- Built **Luna**, an internal AI agent that helps employees **raise, resolve, and cancel support tickets**, supporting Planet's focus on automating common **L1 support tasks**.
- Automated recurring **Excel reports, Power BI dashboards, and PowerPoint reporting** using **Power Automate and Microsoft APIs**, streamlining internal reporting workflows.
- Monitored **Copilot Cowork usage** and developed **weekly usage reports** to give stakeholders visibility into AI tooling adoption and usage patterns.
- Worked closely with the **payments team** and cross-functional stakeholders to understand operational requirements, identify automation opportunities, and integrate AI into existing workflows from prototyping through production.
- Documented AI and automation projects in **OneNote and SharePoint**, supporting knowledge sharing, stakeholder collaboration, and ongoing maintenance.

Freelance AI Engineer Oct 2024 – Aug 2026
Consulting and Technology Clients *Remote | Dublin, Ireland*

- Delivered **4 production data pipelines and AI features** using Python, LangGraph, MCP, PostgreSQL, and AWS, providing technical documentation and deployment handoffs to engineering teams.
- Reduced AI model operating costs by **30%** through automated task-based model routing; reduced manual business research effort by **70%** through an autonomous research agent.

Data Analyst May 2023 – Jul 2024
Cloud Gramam *Chennai, India*

- Built and maintained **Power BI dashboards** for production, inventory, sales, procurement, and finance, giving leadership near real-time KPI visibility and reducing manual reporting effort by **60%**.
- Analysed operational data using **SQL, Microsoft Fabric, Power Query, and Excel** to identify production trends, inventory bottlenecks, and findings that informed weekly management decisions.
- Created reusable **SQL views and calculated metrics** to standardise reporting across four business functions; validated and reconciled datasets to improve dashboard accuracy.
- Analysed manufacturing KPIs to identify workflow inefficiencies, supporting optimisation initiatives that reduced **API response time from 450ms to 35ms** and improved reporting performance.

Projects

IT Service AI Agent

LangGraph, Microsoft Graph API, Power Automate, Jira Service Management APIs

- Built an **AI-powered L1 service desk agent** using LangGraph to classify employee requests and orchestrate support workflows for password resets, Microsoft 365 licensing, Outlook, Teams, and device health.
- Developed an intent classification pipeline achieving **over 90% accuracy during testing**; used confidence-based routing to escalate complex or low-confidence requests to support engineers.
- Integrated **Microsoft Graph API** for user account lookups, directory information retrieval, group membership management, and license assignment workflows.
- Connected **Power Automate and Jira Service Management APIs** to execute support workflows and create, update, assign, or escalate incidents based on AI confidence and workflow outcomes.

AI Build Router

LangGraph, Claude API, Codex, Supabase, pgvector, E2B

- Built a **14-node LangGraph orchestration pipeline** that decomposes product ideas into modules and selects models using task fit, complexity, tool health, execution history, and cost.
- Designed **four layers of contract verification**: AST analysis with tree-sitter, TypeScript checks, contract tests in E2B, and LLM semantic review to detect implementation deviations before merge.
- Implemented a **five-tier recovery workflow** spanning automated fixes, low-cost LLM repair, worker retries, model escalation, and human review, with per-agent budget enforcement.
- Persisted plans, module contracts, and execution progress as **versioned JSON in Supabase**, using row-level security per user and project to support crash recovery, change tracking, and rollback.

Enterprise Data Lakehouse with Agentic AI

Databricks, PySpark, Delta Lake, LangGraph, Vector Search, RAG, MCP

- Designed a **Bronze-Silver-Gold medallion lakehouse** integrating CRM, ERP, and support data into curated datasets for enterprise reporting and natural-language analytics.
- Built a **self-correcting LangGraph agent** using Databricks Vector Search and RAG across **50K+ documents**, generating citation-backed responses grounded in retrieved evidence.
- Applied **data quality checks and access controls** across lakehouse layers so retrieval operated over governed, trusted data.
- Integrated **Excalidraw through MCP** to automate flowchart and visual generation alongside AI recommendations, extending analytical responses with visual explanations.

Incremental RAG Pipeline on Microsoft Fabric

Microsoft Fabric, OneLake, Delta Lake, PySpark, Airflow, PyTorch, Power BI

- Developed an **incremental RAG system** using deterministic chunk IDs and 384-dimensional embeddings, re-embedding only new content to avoid redundant processing of unchanged documents.
- Built a **Bronze-Silver-Gold pipeline in OneLake** using Delta Lake MERGE on business IDs to insert new records and update changed records, orchestrated with **Apache Airflow**.
- Implemented **hybrid retrieval** combining semantic vector search with structured joins on supplier IDs, returning top-k results that pair document context with exact performance metrics.
- Created a **natural-language analytics layer** translating questions into structured chart specifications for on-demand matplotlib visualizations, complemented by a Power BI dashboard over Spark-materialized Gold tables.

Education

MSc Computing (Data Analytics), Dublin City University — Sep 2024 – Sep 2025
BE Computer Science Engineering, Anna University — Jul 2019 – May 2023

Certifications and Professional Development

Google Data Analytics Professional Certificate (Coursera)
AI Engineer Core Track: LLM Engineering, RAG, QLoRA Agents (Udemy)
AWS Data Engineering Coursework (Udemy)