

# JATIN ARORA

## Data Engineer & AI Specialist

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LinkedIn Profile | Portfolio: maddy-codes.github.io

### PROFESSIONAL SUMMARY

**Data Engineer & AI Specialist** with a track record of architecting enterprise-grade data infrastructure. Rehired by PHM to lead a critical financial migration and Azure Data Warehouse deployment. Combines the enterprise standards of AstraZeneca with the grit of a **technical founder**. Focused on building scalable, event-driven data systems that drive real business efficiency.

### TECHNICAL SKILLS

- Data Engineering Architecture:** Medallion Architecture (Bronze/Silver/Gold), Dimensional Modeling (Star Schema), Event-Driven Architecture (EDA), Hybrid Batch/Streaming Pipelines.
- ETL & Orchestration:** Azure Data Factory (ADF), Apache Airflow, Ingest, Logic Apps, Change Data Capture (CDC), Incremental Loading (Upserts/Idempotency).
- Cloud & Storage:** Azure SQL Data Warehouse (Synapse), Azure Blob Storage, PostgreSQL, Docker, Azure Container Registry.
- AI & LLM Engineering:** RAG (Retrieval Augmented Generation), Vector Embeddings, Context Window Management, CrewAI, LangGraph, Azure AI Services.
- Languages & Power Platform:** Python (Advanced: Pandas, NumPy), SQL, Power BI (DAX), Power Automate.

### PROFESSIONAL EXPERIENCE

#### PHIPPS HENSON MCALLISTER

Northampton, UK

*Data Engineer (Rehired after Placement)*

*Sept 2025 – Present & June 2023 – Aug 2024*

- Strategic Return:** Rehired to scale the data infrastructure I previously built and lead the firm's transition to AI-driven services.
- Infrastructure:** Engineered and deployed a centralized **Azure SQL Data Warehouse** using a Medallion Architecture, creating a single source of truth for 50+ staff.
- Migration:** Sole engineer leading the mission-critical end-to-end migration from **IRIS to Karbon**, architecting resilient ETL pipelines utilizing both batch and event-driven triggers.
- Automation:** Built custom Python & Power BI solutions with CDC (Change Data Capture) logic to automate financial reviews, reducing manual workload by 20+ hours weekly.
- Product Development:** Currently developing prototypes for "Carbon Accounting" and "AI Financial Review" to open new service lines for the firm.

#### ASTRAZENECA

Cambridge, UK

*AI & Data Science Placement*

*Sept 2024 – Aug 2025*

- AI Modelling:** Engineered an advanced AI prediction model to forecast clinical trial shipping quantities, directly optimizing inventory management and reducing material waste.
- Process Automation:** Automated manual data workflows across seven departments in the Logistics & Clinical Supply division using Python and Power Automate, significantly improving operational efficiency.
- Analytics:** Developed interactive Power BI dashboards to visualize complex supply chain metrics for senior stakeholders.

#### BIZPREDICT (Venture Project)

Northampton, UK

*Lead AI Engineer & Architect*

*Oct 2024 – Jan 2025*

- Architected the full technical stack for an AI-driven analytics platform focused on retail pricing optimization.
- Developed machine learning models to predict inventory trends and automate pricing adjustments using Python and Scikit-Learn.
- Designed and implemented the MVP (Minimum Viable Product), demonstrating strong technical leadership and product management skills alongside university studies.

#### UNIVERSITY OF NORTHAMPTON

Northampton, UK

*Research Assistant (NLP)*

*April 2023 – Oct 2024*

- Co-developed an NLP-powered mental health chatbot capable of predicting user emotional states from text/speech patterns.
- Analyzed logistics fulfillment processes for GXO, identifying bottlenecks via data modeling.

### EDUCATION

#### B.Sc. (Hons) Artificial Intelligence and Data Science

*2022 – 2026 (Expected)*

*University of Northampton*

- Grades:** Consistently achieving A+ / A grades.
- Key Modules:** Cloud Computing, Big Data, Relational Databases, Data Structures & Algorithms.

### LEADERSHIP & COMMUNITY

- Founder & President, AI Student Society:** Founded the university's first AI community to bridge the gap between students and industry. Mentored junior students and organized tech workshops.
- Public Speaking:** Represented the student voice in regional AI debates organized by the Association for Learning Technology, advocating for ethical AI adoption.
- Thought Leadership:** Featured in university research blogs for work on AI integration in education.