

Professional Profile

Offers extensive experience serving in data and AI engineering leadership roles delivering production AI systems and scalable data platforms at enterprise scale. Brings further expertise in deep infrastructure, and hands-on AI implementation, from LLM safety red-teaming to RAG prototypes and predictive modelling. Holds a valuable track record of translating emerging technologies into measurable business outcomes, through AI tooling and zero-downtime platforms across multi-region operations.

Exemplary interpersonal skills underpin the ability to build mutually positive and productive relationships with colleagues, while communicating complex messages in ways that are meaningful to non-specialist audiences, by serving as the conduit between business and tech stakeholders. Leads and optimises the performance of teams with an inclusive management style, characterised by coaching, collaborative working and continuous improvement. Places values of integrity, innovation and impact at the heart of all activity.

Selected Areas of Expertise (Business)

- Business Leadership
- Infrastructure Modernisation
- Performance Optimisation
- Data Strategy & Governance
- Agile Project Leadership
- Workflow Efficiency & Automation
- Solution Design & Delivery
- Cross-functional Collaboration
- Coaching & Mentorship

Selected Areas of Expertise (Technical)

- Databricks (Lakehouse, UC)
- PySpark / Spark SQL
- Streaming Data Pipelines
- Data Modelling & Architecture
- Terraform / CI-CD
- LLM Integration (Multiple Vendors)
- AI Safety & Red Teaming
- RAG & Vector Search
- Forecasting & Predictive Modelling
- AI Assisted Development
- Multi Region Deployment
- High Availability Architecture
- Platform Performance Tuning
- Cost Optimisation
- Observability & Monitoring

Career Summary

 **Head of Data Engineering | Head of Data** *Commify Ltd • Nottingham*

2023 – present

KEY ACHIEVEMENTS & PROJECTS DELIVERED

- Cut new-region deployment cycles from up to two months to five hours by directing infrastructure modernisation with Terraform and CI/CD
- Drove enterprise AI adoption by building the business case that secured C-suite commitment to AI tooling across safety, LLM integration, and AI-assisted development
- Eliminated daily pipeline failures through optimised architecture, workload-tuned cluster configurations, and fault-resilient pipelines, maintaining zero downtime over 18 months across multi-brand, multi-region operations
- Realised €500k annual savings by re-architecting Databricks estate, resulting in
 - doubled platform capacity, through reusable pipelines and templates
 - elimination of data delays using Delta Lake and Unity Catalog
- Built real-time analytics capability using Delta Live Tables and Apache Superset, delivering customer insights via cost-optimised batch intervals as a Data-as-a-Product framework
- Boosted developer productivity by 33% by rolling out AI-assisted development across engineering, from Cursor AI to multi-agent orchestration with Claude Code
- Enabled customer retention and capacity planning across global operations by building churn prediction and demand forecasting models
- Quadrupled monthly process invocations by coaching each business function on AI adoption and prompt engineering, removing misconceptions and driving sustained Google Gemini uptake
- Safeguarded the company against potential regulatory and legal exposure across multiple jurisdictions by
 - conducting comprehensive red-team security testing of Azure AI services
 - escalating vulnerabilities in content safety guardrails to Microsoft's AI safety team, resulting in collaboration to remediate risks prior to customer deployment
- Led a team of eight to deliver a RAG-based, vector-search analytics prototype, validating a customer-facing AI chat interface now in product development

- Gave teams real-time visibility to act on customer trends by rolling out Databricks Genie to provide sentiment and vibe analytics on messaging data

RESPONSIBILITIES

- Leads data and AI strategy for a €100m global messaging platform, including
 - ensuring reliability and time-to-trust in platform governance, encompassing Unity Catalog (RBAC, lineage, schema controls) and Great Expectations integration
 - managing and mentoring an eight-person team of engineers and analysts to deliver scalable infrastructure, real-time analytics, and AI innovations aligned to the Esendex Connect Azure platform
- Embeds a data-centric culture by coaching the global team on agile practices, as Certified Scrum Master

Head of Data Engineering | Lead Data Engineer *Azzurro Associates Ltd • Southampton*

2020 – 2023

KEY ACHIEVEMENTS & PROJECTS DELIVERED

- Designed and automated the management of assets representing a £1b book value, that freed up over 140 hours of FTE cost per month and eliminated human-induced errors
- Directed delivery of key migrations, such as
 - SQL Server to the Databricks platform, and optimised the platform's cost against performance
 - Azzurro Data Warehouse from Azure Synapse to Synapse Serverless, saving over £45k annually
 - Monte Carlo simulation models from a dedicated VM to Databricks, saving more than £50k a year
- Enhanced data processing by implementing and integrating OpenAI models into ETL pipelines
- Built multiple complex data pipelines using Pyspark reusable functions, meta data storage layers and bespoke Databricks notebooks to fully load data from pre-purchase to acquisition
- Defined a data quality monitoring framework that included automated fixes to data quality issues
- Created a data repository that enabled end-users to search millions of unstructured data items instantly
- Implemented streaming data ingestion routines utilising Databricks Autoloader and the Cloud Files format
- Introduced ACID compliance into the data storage layer within the Azure Data Lake through the use of Delta Tables
- Delivered a project to build a self-serve ETL mapping tool that allowed the Data Science team to map pre-purchase accounts data to a conformed data layer, without requiring data engineering support
- Designed and embedded into BAU a new data governance framework encompassing coding standards, GDPR compliance, security and risk mitigation policies
- Enabled business growth by facilitating transition from a relational database platform to an unstructured data platform, allowing the company to apply its data more effectively

RESPONSIBILITIES

- Oversaw delivery of robust data services, including
 - building organisational data engineering expertise, and ensuring that the data platform of choice met and tracked evolving company needs
 - providing technical leadership to a team of seven data engineering staff
 - minimising reliance on third-party service and software providers by building internal solutions to automate processes


Data and Analytics Manager | Technical Data Manager *Liverpool Victoria Friendly Society Ltd • Bournemouth* 2016 – 2020

KEY ACHIEVEMENTS

- Led smooth running of the Data and Analytics department supporting 1000+ FTE, including strengthening BI capabilities and data-driven decision-making by
 - defining a new data management strategy
 - introducing Python for statistical analysis and ML model development
- Streamlined data estate and improved scalability by directing migration of on-premises SQL Server to Azure PaaS
- Realised savings of £680k in year one and £400k annually by creating an Anti-Money Laundering and Counter-Terrorism Financing application
- Halved the PRA reporting cycle to 20 days by implementing Single Customer View, and automating ELT routines
- Introduced self-serve processes that streamlined audit reporting from two months to two hours

Further Contractual Roles

 **Business Intelligence Analyst** *Barclays Bank PLC – Barclays Partner Finance • Cardiff* 2014 – 2016

 **Business Intelligence Consultant** *South Staffordshire Housing Association • Stafford* 2013 – 2014

 **SQL Server Developer** *Condor Ferries Ltd • Poole* 2013

 **Business Intelligence Consultant** *Chaucer Syndicates Ltd • London* 2012 – 2013

 **Business Developer** *Third Time Ltd • Bournemouth* 2011 – 2013

 **Various Finance & Retail Roles** *HSBC | The Noisy Drinks Co • Bournemouth* 2003 – 2011