

Gareth Moger

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Personal Profile

I am an engineering leader with a proven track record of leading data-driven transformations within dynamic industries. My expertise lies in architecting robust data infrastructures that enable scalable, efficient, and innovative analytics solutions. With a strong foundation in computer science and over a decade of experience, I have developed a keen ability to translate complex data challenges into actionable strategies and technical roadmaps.

My leadership style is collaborative yet decisive, fostering a culture of continuous learning and innovation among my teams. I am skilled at building and mentoring diverse teams of data engineers, analysts, and scientists to deliver projects that optimize data flow and quality, enhance business intelligence, and drive decision-making.

I work to leverage the latest in cloud technologies and machine learning models to enhance the capabilities of data platforms, ensuring they not only meet current business needs but are also future proof. My approach combines hands-on technical skills with strategic oversight, allowing me to oversee the development of large-scale data systems from conception through to deployment and optimization.

I am always looking for new challenges that push the boundaries of what data can achieve, aiming to drive growth, value to stakeholders and innovation within an organisation.

Employment History

Engineering Manager (Analytics Enablement) Skyscanner

Feb 2023 - Present

As the Engineering Manager for Analytics Enablement at Skyscanner, I simplify the process for our teams to discover, create, reuse, and share insights, thus facilitating data-driven decision-making across the organisation. I oversee our analytics platforms, including Tableau, Amplitude, AtScale, Qualtrics, and Databricks, ensuring they serve our consumers effectively.

My role blends technical expertise, project management, and leadership, encompassing a variety of strategic initiatives:

- **Tableau Cloud Migration:** Led the business review of Tableau and managed the migration project from a self-hosted server to a cloud environment, set to complete in 2024.
- **Amplitude Integration:** Spearheaded the implementation of Amplitude as our product analytics platform, enhancing our ability to build superior products by providing comprehensive insights into user interactions.
- **Qualtrics Deployment:** Directed the deployment of Qualtrics for real-time user research and surveys, increasing our engagement with customers.
- **AtScale Optimisation:** Oversaw the optimization of data models on AtScale, our semantic layer platform, which leverages machine learning to deliver high-performance data models.
- **Financial Leadership:** Managed cost governance on a budget of approximately \$3 million for the Data Tribe.
- **Strategic Refresh:** Initiated a review and realignment of our strategic objectives and squad purposes, boosting the team's focus on delivering significant business impact and enhancing operational velocity.

As a people and engineering manager my responsibilities include:

- Build, lead, and serve an effective team of engineers through coaching, mentoring, feedback, and hands-on career development.
- Facilitate cross-functional partnership across the company, to set the right goals and solve problems across our platform.
- Advocate and advance modern, agile engineering practices and help develop and evangelise great engineering and organisational practices.
- Grow the technical expertise of my team and support a healthy, collaborative engineering culture in-line with our values.

Tech Stack: AWS: S3 data lake, Lambda, SNS/SQS, Kinesis, Python, Jenkins, Snowflake, BigQuery, SQL Server Dbt, Fivetran, Qlik, PowerBI, more..

Career Break

Nov 2021 – Dec 2022

Following 2 years of Covid upheaval I have taken time out from employment to travel throughout Asia and focus on personal development, health and well-being. I set personal challenges throughout, such as trekking the Annapurna Circuit in Nepal. The experience has given me invaluable insight into different cultures and built on positive attributes such as self-motivation, good communication, independence and creative thinking in problem solving.

Principle Data Engineer – Dunelm

Nov 2020 – Oct 2021

A leader and technical practitioner role at the UK's #1 homeware retailer and the largest adopter of AWS Serverless in Europe to transform their data platform to modern, highly scalable, performant cloud-based infrastructure.

- **Team Leadership:** Building and supporting 4 multi-disciplinary engineering teams of over 30 people, working hands-on to coach best practices, Agile methodologies and drive productivity.
- **Data Platform:** Led implementation of Snowflake and Dbt as the bedrock of our data platform.
- **Technical Strategy:** Ownership strategy and application of standards across the domain, assessing high-level requirements and giving architectural sign-off to proposed developments.
- **Architecture:** Build large scale real-time and batch data pipelines, using microservices architecture and integration tooling to broaden and accelerate data capture across a diverse landscape.
- **Data Modelling:** Lead the data lake and warehouse development, applying modelling and governance best practices.
- **Analytics:** Support delivery of BI reporting, analytics tools, dashboards and encourage data self-service to end users with on-demand capabilities.
- **Machine Learning:** Facilitated collaborative design of ML architecture and operations, partnering with AWS, to identify and encourage high-value customers (CLTV), churn modelling, optimising marketing activities (paid search/recommendations), stock management and demand forecasting.
- **Vendor Management:** Procurement and management of technology partners.
- **Collaboration:** Work with other principles, senior leaders and architects to shape the future of the entire digital platform.

Tech Stack: AWS: S3 data lake, Lambda, SNS/SQS, Kinesis, Python, Jenkins, Snowflake, BigQuery, SQL Server Dbt, Fivetran, Qlik, PowerBI, more..

Head of Data Engineering – Jisc

Feb 2018 – Oct 2020

At Jisc, I established data engineering as a distinct specialty and served as the technical lead for data infrastructure initiatives. As our services expanded, I assembled and led a team of proficient data engineers who developed innovative products and services, propelling the education sector toward a modernised digital teaching and learning experience.

- **Technical Leadership:** Full technical ownership of data infrastructure, including the creation of a "Data Hub" for learning analytics. This integrates a wide array of data sources to capture students' digital footprints and stored in both relational and NoSQL databases.
- **Architectural Transformation:** I transitioned our architecture from monolithic server processing to event-driven microservices, enhancing scalability, reliability, security, and cost-effectiveness, reducing our spend by 80%.
- **Product Management:** Technical feasibility and guidance on new and emerging products, working closely with product management, and facilitating customer requirement gathering.
- **Infrastructure Automation:** I implemented infrastructure as code practices using Terraform and established CI/CD pipelines with AWS CodeBuild and CodeDeploy.
- **Customer Engagement:** I served as the customer-facing technical lead for the deployment of Jisc data products.
- **Data Integration Management:** I managed data collection infrastructure by integrating with leading sector platforms and systems through APIs, ODBC/JDBC, and SFTP servers for file submissions.
- **Data Warehouse Solutions:** I designed and delivered a comprehensive student activity warehouse in Amazon Redshift, including the development of data models, APIs, and BI tool integration.
- **Data Management Strategy:** I crafted strategies, and interoperable data standards, focused on data audit, quality, integrity, archiving, and restoration to maintain and enhance data reliability.

Tech Stack: AWS: S3 data lake, ECS/Fargate, Docker, Terraform, Lambda, SNS/SQS, Python, Redshift, MongoDB

Data Developer/Analyst – Kingston and Cardiff Universities

Jun 2016 - Jan 2018

Developed analytics service to inform the strategic and operational management of the University.

- Provide specialist support in the areas of data management, research and analysis.
- Develop KPI's with executive team and create analytics solutions that monitor progress.
- Advise business intelligence system team on development path.
- Oracle and SQL server data pipelines and integration with BI tools (Power BI, Tableau etc)
- Develop processes for maintaining the integrity and quality standards on databases.
- Data processing using Python.

Systems Developer/Analyst – Cardiff University

August 2012 - October 2015

Support the implementation, development and maintenance of corporate systems and deliver data analytics and business intelligence platforms from them.

- Support the full systems development lifecycle.
- Design data models for implementation in data warehouses and in BI platforms (Oracle, Business Objects).
- Manage legacy system migration into enterprise platforms, ensuring security, quality and integrity at every stage
- Manage and administer proxy server for off-site access to electronic resources (EZProxy).
- Design and develop integrations with new systems/services (e.g. mobile apps BrowZine).
- Coordinate upgrades to systems with minimum downtime and disruption to service.

Systems and Data Analyst – NHS Wales

May 2006 - Jul 2012

Support the implementation, development and maintenance of corporate systems and deliver data analytics and business intelligence platforms from them.

- Coordinate data collection from NHS Wales (3m population and 78k staff) for use in performance management.
- Develop, maintain and interrogate databases using SQL, Python and BI tools.
- Design and develop bespoke tools for reporting and analysis.
- Lead implementation of API between Payroll and rostering systems.
- Use statistical techniques to provide robust evidence in reporting.

Data Officer – Department for Work & Pensions

Oct 2005 – May 2006

Provide administrative support to the Incapacity Benefits department. This included processing new claims on a national database and managing a complaints service to report on key areas of improvement.

Key Technologies

Python – Pandas, Numpy, Flask/Django

JavaScript - Node, Express, React, Angular

Infrastructure & Cloud – S3, ECS/Fargate, Glue, SQS/SNS, Athena, Lambda, serverless/microservices architecture.

Database/Warehouse – Snowflake, PostgreSQL, Redshift, Oracle, SQL Server, MySQL, MongoDB, BigQuery

Data Pipelines – ETL/ELT methodologies, Integration, Data modelling, SQL

Data Delivery – BI integration, REST API development, web/mobile application integration

Distributed Storage/Compute – Hadoop infrastructure, Spark, Kafka

Build/Deploy/Other – Docker, Terraform, CloudFormation, Jenkins, CodeBuild/Deploy, Jira, Splunk, Git, TDD

Sys Admin – Linux Bash, Nginx, Apache, Unicorn, SFTP, Samba, SSL configuration

Training and Education

AWS Certified Solutions Architect – PearsonVue

Certified Scrum Master - CSM-LearningTree

Spark and Hadoop Developer (CC175) - Cloudera

Oracle Database Systems - Cardiff University

Statistics for Education - Reading University

ITIL v3 – Foundation Level - Axelos

Statistics in Health Informatics - NWIS

Data Visualisation UCL

Full-stack Web Development - FreeCodeCamp

Coleg Glan Hafren - 2005

-Law (A2) - B

-Psychology (A2) -B

-Sociology (A2) – A