

# Peter Milne

## *CTO / Engineering Leader — AI & Data Systems*

Aberdeen, United Kingdom

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## Professional Summary

CTO-level Engineering Leader with 20+ years delivering and scaling complex software systems across data-intensive and regulated domains. Proven track record leading global engineering organisations, shaping technical strategy, and delivering production AI-driven platforms from research through to operation. Known for calm execution, strong architectural judgement, and the ability to align engineering delivery with real business outcomes.

Brings deep hands-on understanding of modern data platforms and machine learning systems, combined with senior leadership experience across Energy, Analytics, and Financial domains.

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## Core Capabilities

### Engineering Leadership & Strategy

- Engineering org design, technical roadmaps, delivery execution
- Agile leadership, cross-functional collaboration, stakeholder alignment
- Post-merger integration, cost optimisation, platform rationalisation

### AI & Data Systems

- Production ML systems, forecasting, and uncertainty modelling
- Feature engineering, calibration, explainability, and evaluation
- Pragmatic application of AI in noisy, real-world domains

### Architecture & Platforms

- Distributed systems, data platforms, API-first architectures
- AWS & Azure cloud environments, containerised deployments
- CI/CD pipelines, observability, and operational reliability

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## Selected Systems & Products

### Strata — Geospatial ML & Decision Support for Offshore Well Planning

2024 – 2025

Led the design and delivery of a production-grade geospatial analytics platform for offshore drilling planning and performance forecasting.

- Architected a multi-layer data model separating physical wells, analytical features, and similarity-graph domains to ensure correctness and explainability
- Built a spatial analogue engine using KNN over geographic distance and water depth, producing defensible peer sets for comparison
- Developed a drilling difficulty framework based on neighbour-derived rate distributions, enabling relative difficulty assessment rather than naïve duration prediction
- Designed forecast workflows for planned wells, converting spatial similarity into predicted drilling days with quantified uncertainty
- Delivered an interactive Mapbox-based front end supporting exploratory analysis and scenario planning
- Designed the platform for future multi-tenant SaaS deployment with clean ownership and billing boundaries

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### Fishfacts — ML Forecasting Platform for Fisheries

2024 – 2025

Designed and deployed a production-grade LSTM-based quantile regression system forecasting fish market prices across UK ports and species.

- Built point + delta quantile models with classifier-derived uncertainty weighting
- Developed parallel XGBoost classifiers for catch detection and quantile shaping
- Achieved strong calibration and accuracy through log transforms, residual filtering, and SHAP-based feature selection
- Deployed on AWS ECS with PostgreSQL backend and Angular-based visualisation
- Implemented infrastructure-as-code using AWS CDK and end-to-end ML pipeline orchestration

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## Professional Experience

### Subsea7 — Aberdeen, UK (Hybrid, Contract)

#### Technical Lead, Digital Transformation (Finance)

2024 – 2025

- Led a cross-functional engineering team modernising financial systems via Azure-hosted microservices
- Oversaw architecture, cost optimisation, security improvements, and hands-on development
- Worked directly with senior finance stakeholders to align delivery with strategic and regulatory requirements

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### S&P Global — Aberdeen, UK (Remote)

#### Director of Software Development

2022 – 2023

- Directed a global engineering organisation of 40+ engineers across multiple product lines post-merger
- Led cloud migration to AWS, reducing compute costs by ~50% while improving system uptime

- Defined and delivered the roadmap for next-generation analytics products across energy and commodities markets

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## IHS Markit — Aberdeen, UK (Remote)

### Director of Software Development

2019 – 2022

### Associate Director

2013 – 2019

- Led large-scale engineering transformation initiatives including cloud migration and CI/CD adoption
- Delivered API-first data ingestion and delivery platforms used by major Oil & Gas clients
- Scaled engineering teams to 40+ staff while improving agility, reliability, and technical depth

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## Earlier Career

Senior engineering roles at Instalec Technology Group, Accenture, and Petroweb, delivering enterprise software systems, analytics platforms, and backend services across industrial and commercial sectors.

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## Education & Certifications

**MSc Information Engineering** — The Robert Gordon University, Aberdeen

**BSc (Hons) Computer Science** — The Robert Gordon University, Aberdeen

### Certifications

- PRINCE2 Practitioner
- MCSD (.NET)
- Microsoft Certified Technology Specialist
- *Currently studying:* AWS Solutions Architect – Associate

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## References

Available upon request.