

Ruaridh Newman

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About

Software engineer with ten years' experience designing and evolving complex software systems. Experienced across software architecture, distributed systems, technical strategy and product development in both high-growth startups and large-scale engineering organisations.

I believe the best technical decisions are the ones engineers no longer need to think about. Throughout my career I've used engineering judgement, software architecture and technical strategy to remove incidental complexity, create coherent technical direction and build platforms that remain easy to understand, evolve and extend as organisations grow.

Core Technologies

Languages | TypeScript • JavaScript • C# • Python

Backend | Node.js • NestJS • .NET • ASP.NET Core • FastAPI • GraphQL • REST APIs

Frontend | React • Next.js • Tailwind CSS

Cloud & Infrastructure | AWS (Lambda, ECS, EC2, IAM, S3, DynamoDB, OpenSearch, Kinesis) • Kubernetes • Docker • Terraform

Distributed Systems & Data | PostgreSQL • Prisma • Kafka • Debezium • CQRS • Event Sourcing • MassTransit

Work Experience

Bitfount

London, UK (Remote)

Senior Software Engineer

2025 - Present

Helping shape the evolution of Bitfount's privacy-focused machine learning platform, contributing to the software architecture behind secure machine learning workflows and orchestration. Developing platform capabilities that enable increasingly sophisticated workflows while supporting new products and expansion into clinical trials and other regulated industries.

- Leading the evolution of the platform into a reusable execution engine with industry-specific applications built on top, enabling expansion into new markets while reducing the technical complexity of future product development.
- Recognised that bespoke DynamoDB projections were becoming a bottleneck for product development, and redesigned the platform's read architecture around reusable OpenSearch read models, significantly reducing the engineering effort required to deliver new frontend features.
- Synthesising product, engineering and customer requirements into coherent technical direction, aligning engineering, product, design and customer success around the continued evolution of the platform.
- Building cloud-native products using TypeScript, Node.js, React, Python and AWS.

Resident Advisor

London, UK

Technical Lead / Staff Software Engineer

2018 - 2025

Progressed from Software Engineer to Technical Lead during seven years at Resident Advisor, helping evolve a large-scale distributed platform through a period of significant architectural change. Led architectural initiatives and technical strategy that reduced engineering complexity, improved organisational alignment and enabled teams to evolve the platform without disrupting product delivery.

- Created a long-term engineering strategy that established a consistent architectural direction across the organisation, reducing technology sprawl and allowing teams to focus on building products rather than making repeated technology decisions.
- Recognised that fragmented operational data was limiting business insight, and developed a wider data strategy that established the architectural direction for analytics, reporting and business intelligence across the organisation.
- Recognised that increasing service-to-service communication would create long-term coupling between teams, designed an event-driven data replication platform using Kafka and Debezium, and drove its adoption across the engineering organisation, enabling services to evolve independently without increasing engineering complexity.
- Reduced repeated engineering effort by introducing GraphQL Mesh as a shared gateway, centralising authentication and schema composition while simplifying service integration across teams.
- Guided the incremental evolution of the platform, improving architecture and reducing long-term technical complexity without disruptive rewrites or slowing product delivery.
- Influenced long-term engineering direction through architectural proposals covering platform evolution, engineering strategy and data architecture.
- Enabled engineers to take ownership of complex technical work through mentoring, architectural guidance and collaborative technical leadership.
- Delivered software across backend services, frontend applications and cloud infrastructure using TypeScript, C#, React, GraphQL, Kubernetes and AWS.

Storm Ideas

Edinburgh, UK

Software Engineer

2016 - 2018

Developed full-stack web applications for commercial clients, building a broad technical foundation across backend development, frontend engineering and cloud infrastructure while working across a variety of products and industries.

Education

Birkbeck, University of London

Master of Science (MS) | Global Political Economy | GPA: In progress

University of Glasgow

2016

Bachelor of Science (BS) | Physics with Astrophysics | GPA: First class honours

Skills

Languages: English (Native) · Polish (Basic)