Chris Clayton

AI Technical Lead & Senior Software Engineer

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Profile

AI Technical Lead and Senior Software Engineer with three years building commercial agentic AI and applied machine-learning systems, backed by sixteen years of professional software delivery. Experienced in technical leadership, architecture, hands-on implementation, security, performance, integration, and remote collaboration. Comfortable owning work from an uncertain first problem through technical design, production deployment, and long-term improvement. I'm pragmatic about technology: I favour C#/.NET for long-lived web and REST API platforms, while choosing languages, databases, and infrastructure to fit the problem rather than treating one stack as an identity.

Current focus

- Production agentic systems, retrieval-augmented generation, data access, and tool orchestration.
- Delivery across C#/.NET, Python, TypeScript/JavaScript, Java/Spring, C++, C, and Rust.
- Enterprise integration, cloud and on-premises deployment, security by design, and maintainable platform architecture.
- Hands-on AI transformation across specifications, implementation, automated testing, local and pull-request review, codebase analysis, and verification.

Technology overview

AI and data: Agentic AI, RAG, LLM evaluation, MCP, Semantic Kernel, LangChain, Python, Azure OpenAI, speech-to-text, text-to-speech, vector search, OCR, computer vision, image classification, element detection, predictive modelling, SQL Server, PostgreSQL, MySQL, SQLite, MongoDB, and Azure Table Storage.

Application engineering: C#, .NET, ASP.NET Core, ASP.NET MVC, Web API, WCF, WebForms, WinForms, WPF, Entity Framework, REST APIs, JavaScript, TypeScript, React, Angular, Vue, Knockout.js, Node.js, Express, Java, Spring, Rust, C, C++, PowerShell, Bash, HTML, and CSS.

Cloud, platform, and integration: Microsoft Azure, AWS, AKS, Kubernetes, Docker, Podman, Portainer, Azure App Services, Functions, Service Bus, Data Factory, Azure Storage, Bicep, Terraform, Linux, Windows Server, IIS, Nginx, Redis, Elasticsearch, Apache Solr, IBM WebSphere, SAP Hybris, microservices, messaging, and serverless architecture.

Quality, performance, and security: NUnit, xUnit, Microsoft Test Framework, Moq, NSubstitute, static analysis, CI/CD, Git, GitHub, load and volume testing, SQL Server Profiler, dotTrace, ANTS, OWASP ZAP, Metasploit, Kali Linux, penetration testing, observability, and secure software design.

Experience

Razor Ltd - Senior Engineer; Technical Lead for AI products

January 2022-present · Sheffield / remote

Consultancy engineering across customer projects and internal AI products. The most senior engineer in the AI team for a substantial period, leading technical design and hands-on delivery while supporting other engineers.

- Took DataQI from original R&D prototypes through first-version ownership, a ground-up second-version architecture, production deployments, and later near-solo full-stack development.
- Designed and implemented agentic access across documents, databases, on-premises file stores, cloud storage, and MCP servers using C#/.NET, Python, React, PostgreSQL, and Kubernetes.
- Led applied AI R&D spanning computer vision, classification and detection, OCR, energy prediction, and other prototypes.
- Led a real-time conversational system combining streaming speech recognition, LLM orchestration, and text-to-speech.

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- Contributed to a practitioner-led AI transformation across the delivery lifecycle, using separate local and pull-request review agents, broad automated testing, and repository-wide analysis, with very few defects subsequently raised by QA.
- Built live multi-user planning and search capabilities for DB Cargo's UK freight operation, including a windowed Gantt interface backed by Elasticsearch and Redis.
- Helped migrate EuroLink's legacy property platform to Azure microservices, designing reliable Service Bus data synchronisation while both estates remained live.

Saint-Gobain Building Distribution - Senior Software Engineer / Team Leader

April 2017-December 2021 · Huddersfield

- Built and led work on a distributed order-display and signature platform using ASP.NET MVC, SignalR, Knockout.js, and SQL Server.
- Created a .NET Core application framework for replacing more than twenty legacy applications with consistent security and compliance controls.
- Delivered integrations and modules across IdentityServer, Apache Solr, IBM WebSphere, and the wider enterprise estate, including Java/Spring development within SAP Hybris.

Silkwood Valley - Senior Developer / Architect

December 2016-April 2017 · Wakefield

Architected and delivered web applications using ASP.NET Core, React, Azure SQL, Azure Storage, Azure Service Bus, and IdentityServer.

Virtual College - Architecture Owner / Software Developer

April 2013-October 2016 · Ilkley

- Progressed from Software Developer to Architecture Owner across legacy WebForms systems and their ASP.NET MVC replacement.
- Built performance, load, and volume testing tools and used profiling evidence to improve high-traffic learning software.
- Worked across SQL Server, Knockout.js, a bespoke JavaScript framework, and large existing .NET codebases.

Egton Medical Information Systems - Test Environments Engineer / Technical Tester

September 2010-April 2013 · Leeds

- Managed and improved a large VMware vSphere test estate.
- Built custom .NET WinForms client/server tools for test-environment deployment and test-script approval.
- Developed practical experience across testing, infrastructure, automation, and the full software lifecycle.

Education

BSc (Hons) Music Technology and Audio Systems, 2:1 - University of Huddersfield, 2006-2010

Included C++ audio application and plug-in development plus C programming for embedded systems.

Beyond work

Active open-source and Linux contributor. Creator of public .NET, audio, Rust, C++, Python, GTK, React, and browser projects. Home-recording musician for more than 25 years, multi-instrumentalist, singer, and operator of a small independent record label.