Tom Sharp

Senior Full-Stack and Agentic Software Engineer · AI Integrations · TypeScript and Node.js

Manchester, UK · tom@sharp.works · tom.sharp.works · linkedin.com/in/tomsharp

PROFILE

Senior full-stack and agentic software engineer with twenty years of experience building, integrating and operating production software. Recent work centres on agentic applications, tool-calling workflows, MCP integrations and evidence-grounded AI systems. Experienced in public-sector and security-critical environments, with a strong focus on reliability, traceability and clear system boundaries.

CORE SKILLS

Software engineering: Backend services, API and interface design, external integrations, automated testing, troubleshooting, production delivery

AI and LLM engineering: RAG, embeddings, semantic and vector search, document ingestion, retrieval and reranking, prompt and context engineering, tool calling, structured outputs, source grounding, evaluation

Agentic engineering: Claude Code, tool calling, MCP integrations, prompt and instruction design, agent skills, automated validation

Stack: TypeScript, JavaScript, React, Next.js, Node.js, Hono, NestJS, PostgreSQL, Drizzle, Redis, MongoDB, GCP, Docker

EXPERIENCE

sharp.works — INDEPENDENT

Apr 2026 – Present

Founding Engineer / Product Architect

Independent AI software development: building and shipping AI-enabled software from problem discovery through design, implementation and production operations.

- Built TypeFuse, a platform where developers and agents build, publish and reuse typed decisions, with versioned definitions, traceable changes and immutable releases.
- Designed production LLM workflows: document ingestion, RAG, semantic and vector search, reranking, structured outputs and cited evidence.
- Ships with TypeScript, React, Next.js, Node, Hono, PostgreSQL, Drizzle, Redis and GCP, owning product definition, architecture, deployment and operations.

Whitespace — CONTRACT

Dec 2023 – Apr 2026

Senior Full-Stack Engineer

AI-enabled systems for defence and legal-sector clients, shaped and delivered with stakeholders and a solution architect.

- Integrated LLM capabilities into practical client workflows, balancing usefulness with reliability, traceability and the limits of the underlying models.
- Built TypeScript, Node, Hono and React applications backed by PostgreSQL, Drizzle and Redis.
- Contributed to technical direction and architectural decisions across evolving, security-critical projects.

Azinq — CONTRACT

Mar 2023 – Dec 2023

Senior Full-Stack Engineer

Airport invoicing platform managing charges between airports and airlines.

- Built backend services, APIs, business rules and user-facing features across a full-stack NestJS architecture.
- Translated complex aviation and invoicing requirements into maintainable production software.

White.Space CONTRACT

Jul 2021 – Mar 2023

Senior Full-Stack Engineer

Internal and client-facing applications for organisations across defence, higher education and life sciences.

- Built Node APIs and React applications using TypeScript, GraphQL and REST.
- Worked across frontend, backend and data layers with PostgreSQL and MongoDB.

---

bet365 CONTRACT

Jan 2018 – Jul 2021

Senior Full-Stack Engineer

Internal and customer-facing products within small, multidisciplinary engineering teams.

- Built high-scale frontend applications with Vue and TypeScript, supported by Go services.
- Designed for performance, reliability and high-volume consumer use.

Shield Safety Group CONTRACT

Oct 2017 – Jan 2018

Senior Full-Stack Engineer

Time-critical product enhancements delivered to a short, fixed deadline.

- Shipped the agreed scope across Angular, TypeScript, C# and NancyFX.

Stagecoach Technology · Megabus.com CONTRACT

Feb 2017 – Oct 2017

Senior Full-Stack Engineer

Rebuild of the Megabus customer journey and content platform.

- Delivered Angular and TypeScript features over a C# Web API middle tier and Episerver CMS.

Vee24 CONTRACT

Sep 2015 – Feb 2017

Senior Full-Stack Engineer / Technical Consultant

Real-time audio and video customer-engagement platform: architecture advice plus hands-on delivery.

- Built with Node, Angular, WebRTC and Docker for performance and scale.
- Integrated mobile, messaging and data systems including RabbitMQ, Redis and MongoDB.

Earlier permanent roles (2006 – 2015). Senior and mid-level engineering roles at Havas Health Software, Swinton Insurance, Autocab and Interlink Software Services. Healthcare, insurance, ecommerce and service software across C#, .NET, JavaScript and SQL, including high-volume services, event-driven systems and automated test suites.

EDUCATION

University of Manchester · BSc (Hons) Computer Science with Industrial Experience

AVAILABILITY

Manchester-based, available for primarily remote UK engagements, with occasional travel for workshops and technical collaboration.
