

# Rafal Zacher

Full-Stack Software Engineer

## Summary

Software Engineer with hands-on experience building full-stack web applications, APIs, internal tools, and workflow systems across startup, freelance, and operational environments. Strongest in TypeScript, Node.js, React, Next.js, PostgreSQL, and Docker, with experience shipping customer-facing features, admin platforms, third-party integrations, and automation tooling. UK-based with full right to work in the UK and open to relocation.

## Professional Experience

**Signet Tech, Inc.** | Software Engineer & Co-Founder | Jan 2025 – Present

*Part-time alongside full-time employment until Aug 2025; full-time from Sep 2025*

- Co-founded an early-stage fintech startup and delivered a pilot-stage MVP in 3 months, building backend services, web applications, APIs, and deployment workflows from the ground up.
- Built a Dockerised microservices platform of 13 separately deployable services and 17 public API endpoints covering authentication, partner management, fraud checks, payload handling, audit trails, and event delivery.
- Led technical design of the MVP platform, defining service boundaries, API contracts, and deployment approach, while coordinating external contractors for infrastructure setup and security testing.
- Implemented service-to-service integrations using TypeScript, Node.js, PostgreSQL, Redis, RabbitMQ, OpenAPI, JWT, and Zod, standardising validation, authentication, and inter-service communication across the platform.
- Added unit and integration test coverage across core flows and supported internal alpha testing, helping identify issues in authentication, payload handling, and partner workflows before pilot rollout.
- Introduced logging, correlation IDs, error tracking, and webhook fail-safes across core services, reducing debugging time during internal testing and making cross-service issues easier to trace.
- Load-tested core services in a non-production environment, achieving roughly 400 requests/sec at ~80ms average response time, which provided an early performance baseline ahead of pilot validation.

**The Travel Project Studios** | Software Engineer | Part-time contract | Jan 2025 – Apr 2026

- Built and launched a commercial travel platform, delivering a public Next.js site and a custom internal dashboard used by 5 admins across multiple countries.
- Owned end-to-end engineering delivery across frontend, backend, booking flows, content management, SEO tooling, and admin features as the main engineer on the product.
- Built a TypeScript backend using Hono and Cloudflare Workers to support booking operations, transactional email, and reusable service workflows.
- Replaced the previous Webflow setup with a custom Cloudflare-based platform, reducing hosting and infrastructure costs by 93% from £150/month to £10/month.
- Built internal tooling that allowed non-technical staff to manage pages, SEO metadata, user roles, policies, favourites, and draft content without developer support.
- Developed a provider abstraction layer for hotel integrations, allowing the platform to compare and switch booking providers without changing core frontend or backend logic.
- Supported launch of the platform to 5,000 unique visitors within 2 months by delivering SEO-friendly page architecture, scalable content workflows, and admin tooling.
- Introduced CI/CD and automated security checks using GitHub Actions, CodeQL, Semgrep, and OWASP ZAP to improve release quality and catch issues earlier.
- Built AI-assisted alt-text generation and reusable page templates, reducing repetitive admin work and speeding up content publishing.

**Avolta** | Master Data Specialist / Systems Coordinator | Full-time | Nov 2024 – Aug 2025

- Built an internal Excel/VBA reconciliation tool that processed 100k+ records daily across 10+ reports, reducing manual checking time by 90% and producing investigation reports for operational teams and stakeholders.
- Investigated operational data and systems issues across warehouse and retail workflows, supporting data accuracy and day-to-day continuity across SAP, WMS, and reporting processes.

**Siana Travel** | Software Engineer | Freelance | Apr 2023 – Jan 2025

- Led the redevelopment of a legacy Webflow-based travel platform into a bespoke Next.js and React application, improving maintainability and enabling authenticated product features.
- Delivered the full development lifecycle from requirements gathering and technical design through implementation, testing, and release.
- Rebuilt c.10 static pages and 5 dynamic content-driven pages, improving responsiveness, maintainability, and usability across mobile, tablet, and desktop.
- Built signed-in product features including registration, login, password recovery, dashboards, bookmarks, and team views, extending the platform beyond a brochure site.
- Created internal content-management workflows for countries, cities, hotels, stories, and categories, reducing page creation time from hours to minutes.
- Enabled 4 team members to create and manage content without relying on one admin or editing fragile page structures manually.
- Integrated third-party hotel search, availability, pricing, booking, and post-booking flows, initially through Amadeus and later in support of migration to WebBeds.
- Introduced caching and content versioning for public and editorial content, improving page delivery performance and making releases safer.
- Improved mobile responsiveness and resolved stability issues across key user journeys, supporting better usability and stronger organic search visibility.

## Education

**Royal Holloway, University of London** | BSc Computer Science, 2:1 | Sep 2019 – Jul 2024

**Herefordshire & Ludlow College** | Level 3 Extended Diploma in Computer & IT, 100% | Sep 2017 – Jul 2019

## Achievements

**McKinsey Forward Program** | 2026

Accepted for McKinsey Forward, a global professional development programme focused on leadership, problem-solving, and communication, completing structured training in career readiness and workplace effectiveness.

**Student of the Year** | 2019

Awarded Student of the Year from a cohort of 100 students for achieving the highest overall academic performance across all modules and mentoring peers.

## Leadership & Community

**UKSEds** | System Lead / Community Hub Manager | Sep 2023 – Jan 2025

- Planned migration from a legacy WordPress site to a modern replacement, reducing projected costs from £1,000+ to around £100.
- Managed day-to-day operation of a community platform used by 5,000+ members, maintaining site reliability and supporting event communications and content updates.

**upReach** | Associate / Community Ambassador | Aug 2022 – Jul 2023

- Took part in the inaugural Tech500 programme, attending webinars and workshops focused on careers in technology.
- Co-developed an AI-assisted study tool in a 6-hour hackathon, processing scanned exam papers and delivering a working prototype as part of a team of 5.

## Languages

English Native

Polish Native

## Technical Skills

Languages: TypeScript, JavaScript, Python, SQL, C++

Frontend: React, Next.js, Tailwind CSS

Backend: Node.js, Hono, Fastify, NestJS, REST APIs, OpenAPI

Data & Messaging: PostgreSQL, Redis, RabbitMQ, Drizzle ORM

Infrastructure & Tooling: Docker, Cloudflare Workers, GitHub Actions, CI/CD, Jest, CodeQL, Semgrep, OWASP ZAP

Practices: API design, authentication/authorisation, schema validation, testing, Agile delivery, Git