

Summary

I'm a senior software engineer with over 20 years' experience building reliable, scalable systems across fintech, retail, publishing, and Web3. I specialise in backend and platform work, GoLang microservices, modernising legacy systems, and delivering cloud-native infrastructure that works in production. I've worked across regulated environments. I've delivered in high-trust teams and contributed open-source and internal tooling. My technical background spans hardware and software, and my project work includes:

- **Developer experience** - CI/CD automation, platform migration, and observability-first design.
- **Infrastructure** - migrating legacy systems to scalable, containerised microservices.
- **Cloud-native engineering** - developing microservices deployed to AWS/GCP, Kubernetes, and PaaS platforms.
- **Regulatory and compliance** - systems aligned with PCII DSS, GDPR, PSD2, and internal audit frameworks.
- **Event-driven** - RabbitMQ, Kafka, and event-driven systems built for scale and resilience.
- **Payments** - internal and customer-facing flows across fintech, retail, and embedded environments.
- **API design** - OpenAPI/AsyncAPI publishing pipelines, mocking, validation, and spec-first development.
- **Internal tools and automation** - building tools that unblock teams and reduce manual effort.

I enjoy solving problems. I've learned to balance speed with rigour and pragmatism with long-term thinking. I write code that works, is easy to maintain, and self-documents. Sound engineering is as much about people as it is about the code. I have worked on critical projects where autonomy, clarity, and delivery are crucial. I'm equally comfortable building new systems, refactoring old ones, or mentoring developers. Outside of work, I volunteer as a Scout Leader, which mainly involves mud, camping, and helping kids figure things out the hard way. I'm also heavily involved in jousting in the UK and practice classical dressage.

Skills

Languages:

GoLang, Java, Node.js/TypeScript, PHP, Bash, SQL, HTML/CSS/JS, Scala, Python, Groovy, .NET

Cloud & Infrastructure:

AWS (ECS, Lambda, S3, RDS, IAM, etc), Terraform, Docker, Kubernetes (EKS), Azure, VPC design, security groups

Frameworks & Tools:

Spring (Boot), Akka, Scalatra, JSF, Thymeleaf, JPA/Hibernate, Keycloak, Auth0, JWT, Android SDK, Mule ESB, JBoss, WebSphere, Tomcat, Jenkins, TeamCity, GitHub Actions, GitLab CI, Swagger/OpenAPI, RabbitMQ, AMQP

Databases:

PostgreSQL, MS SQL Server, Aurora, MySQL, Oracle, MongoDB, DynamoDB, Neo4j, Infinispan, H2, SQLite

Testing & DevOps:

- **Go:** testing, testify, httptest, gomock, coverage tools, custom assertions
- **Node.js:** Jest, ts-node for testing flows
- **Java:** JUnit, TestNG, Mockito, integration test harnesses
- **Other:** CI/CD pipelines (GitHub Actions, GitLab CI), containerisation with Docker, observability stacks (Datadog, NewRelic, Prometheus, Grafana, Kibana)

Other Domains:

Web3, Solidity, Crypto assets, Flutter/Dart, Android, SOA, RESTful/SOAP APIs, ETL, data warehousing, complex SQL, enterprise architecture, legacy modernisation, DevEx tooling

Experience

SAFE / FRMSc V3 — Senior Platform & Backend Engineer

Aug-Sep 2025 — Remote

- Split a .NET 4/6 + Node 14 monolith(With massive tech debt) into service-aligned workloads on AKS with per-service Ingress.
- Upgraded runtimes to **.NET 9** and **Node 24**. Standardised Dockerfiles and images.
- Built reusable **GitHub Actions** for build/push/deploy with parameterised envs and namespaces.
- Hardened K8s: initContainers for deps, tuned probes, PVC for ASP.NET DataProtection keys.
- Centralised config and security: strict CORS, validated JWT issuers, Redis via secrets and K8s Service.
- Improved observability with structured logging across services & deployed a EKS stack for alerting and monitoring.
- Stabilised CI: Unit and System integration tests.
- Delivered a clean **frmscdev** workflow for AKS deploys.
- Delivered a clean **frmsc** instance in a new standalone AKS environment.

Technologies: .NET 9 (ASP.NET Core), C#, Node 24, TypeScript, Docker, AKS (Kubernetes), NGINX Ingress, cert-manager, GitHub Actions, GHCR, Terraform (AzureRM), Azure SQL, Azure Blob Storage, Redis, Keycloak (OIDC/JWT), structured logging, ISO 27001-aligned controls.

Sainsbury's - Senior Full Stack Developer

Mar 2025 - Jul 2025 - Remote

- Improved developer experience by building robust **GitHub Actions** and reusable workflows in **TypeScript** Sainsbury's API onboarding across internal teams.
- Integrated **OpenAPI** and **AsyncAPI** specifications into **SwaggerHub Design Hub** and **Portal**, streamlining delivery.
- Initiated and led the design of a new backend service for managing **SwaggerHub state**, **authentication**, and **authorisation** within Sainsbury's internal **PaaS** (Kubernetes, Helm, GitHub Actions).

Technologies: TypeScript, GitHub Actions, Docker, Kubernetes, Helm, SwaggerHub, OpenAPI, AsyncAPI

Sainsbury's SmartShop - Senior Full Stack Developer

Nov 2023 - Mar 2025 - Remote

- Migrated legacy PHP services to **GoLang microservices**, significantly improving app scalability and maintainability.
- Contributed to development and optimisation of **Android (Kotlin)** and **iOS** apps using **TDD** and **pair programming** practices.
- Reduced memory allocation by **40%** on a key endpoint through profiling and optimisation, cutting cloud operational costs.
- Strengthened performance, reliability, and resilience across the **SmartShop** ecosystem through hands-on backend development.
- Designed backend services and mobile endpoints to resist probing, spoofing, and abuse. Operating under constant exposure to production load testing, malicious actors, and synthetic traffic.
- Implemented defensive coding practices, observability hooks, and secure client/server flows within a heavily scrutinised consumer-facing environment.
- Integrated with **GraphQL**, **REST** and **gRPC** services from other teams, ensuring compatibility and robustness across multiple protocols, while maintaining REST as the primary interface for SmartShop

Technologies: GoLang, Android (Kotlin), iOS, Docker, AWS (ECS), TDD, Pair Programming, REST, gRPC, GraphQL

Ace Web Services Ltd - Development Lead (for Barbourne Brook)

Dec 2023 - Mar 2024 - Remote - Fixed Price Project

- Replaced a fragile, underperforming **PHP application** with a scalable, event-driven data pipeline built in **GoLang**.
- Conducted full system/code review, defined a modern architecture, and led delivery of microservices deployed to **Kubernetes (EKS)** via **Terraform**.
- Dramatically improved throughput, enabling the client to target larger customers previously blocked by performance limitations.
- Designed for scalability, observability, and future extensibility using cloud-native best practices.

Technologies: GoLang, Docker, AWS, Kubernetes (EKS), Terraform, RabbitMQ, PHP, PaaS, DevOps

Sainsbury's Groceries Online - Senior Full Stack Developer

Nov 2022 - Nov 2023 - Remote - Contract (3 + 3 + 3 + 3 months)

- Delivered **Server-Side Rendering (SSR)** features across core grocery applications to boost performance and user experience.
- Built and maintained **GoLang microservices** for backend features and API integration.
- Streamlined DevOps workflows, integrating **Node.js** into the backend pipeline and improving delivery across environments.
- Led migration to a new internal **Platform-as-a-Service (PaaS)**, leveraging **Kubernetes (EKS)**, **Istio**, **Helm**, and observability tools to modernise infrastructure and enhance scalability.
- Applied robust **secrets management**, environment isolation, and secure deployment practices across **Kubernetes** and **Terraform** stacks.
- Hardened microservices and API gateways for multi-team use in a large-scale, multi-tenant environment, with an emphasis on **governance**, **auditability**, and **resilience**.

Technologies: GoLang, Node.js, React, Docker, AWS, Kubernetes (EKS), Terraform, DevOps, Istio, Helm, Kibana

Ace Web Services Ltd - Development Lead

Oct 2022 - Dec 2022 - Remote - Fixed Price Project for whartonbc.co.uk

- Designed and delivered a bespoke self-assessment tool for Wharton Business Consultancy.
- Built a workflow where users enter job role details and answer dynamically generated questions.
- Implemented a scoring system that compares user responses to expected role competencies and suggests training pathways.
- Delivered a full-stack solution using **GoLang**, **React**, and **PostgreSQL**, deployed on **AWS** with containerisation via **K8s**

Technologies: GoLang, Docker, AWS, Postgres, React

Baanx Group - Development Lead

Apr 2022 - Aug 2022 - Remote - Fintech

- Led the redesign of Baanx's core platform to meet **scalability**, **compliance**, and **regulatory** demands (PCI DSS, PSD2, GDPR).
- Rewrote critical product components from **Node.js/React** into **GoLang**, improving performance, modularity, and maintainability.
- Introduced **containerisation with Docker**, and provisioned a scalable **AWS ECS** environment using **Terraform**, enabling smooth rollout for new and existing clients.
- Migrated all B2B and B2C customers to the new infrastructure, unlocking onboarding for high-profile fintech partners.
- Architected and initiated phase two: **multi-tenant capabilities**, **security hardening**, and **Keycloak**-based identity and access management.
- Embedded secure **secrets management**, isolated environments, and **zero-downtime** migration.
- Supported regulatory alignment through infrastructure modernisation, process redesign, and technical upskilling of internal teams

Technologies: GoLang, Node.js, React, Docker, Terraform, RDS, Keycloak

RS Components - Senior Developer

Sep 2021 - Apr 2022 - Remote - Retail/Engineering

- Delivered a new **internal payment service** to replace legacy SAP components, ensuring **PCI** and **PSD2** compliance.
- Developed and deployed **Java 11 / Spring Boot microservices** within RS's DevOps environment.
- Integrated services with platforms such as **Auth0**, **TokenX**, **CyberSource**, **Adflex**, and **VoxPay**.
- Worked across a high-scale cloud environment using **AWS**, **Kubernetes**, **Nomad**, and **Terraform**.
- Contributed to continuous delivery workflows, leveraging **GitLab CI**, **Datadog** for observability, and **Kong** for API management.

Technologies: Java 11, Spring Boot, Docker, AWS, Kubernetes, Nomad, GitLab, Terraform, DynamoDB, RDS, Datadog, NewRelic, Swagger, Kong, Auth0.

Rayvn.digital / Monavate Ltd - Senior Developer

May 2021 - Sep 2021 - Remote - Fintech / Blockchain

- Helped design and build a **multi-vendor marketplace and eCommerce platform** using **GoLang, Kafka, and Kubernetes**.
- Contributed to a **closed-loop digital sales and data platform**, aligned with **ISO 20022 messaging and blockchain integrations**
- Took ownership of the company website and **core product architecture**, collaborating with a distributed team (including Ukraine-based developers)
- Delivered internal tooling and infrastructure, including **SharePoint rollout** and a **Google Workspace to MS365 migration** for 30+ employees
- Supported product evolution across **Ethereum, Solidity**, and decentralised technologies

Technologies: GoLang, Kafka, Java, Kubernetes, Docker, Azure, Linux, GitLab, Ethereum, Solidity, Jekyll

Primis Mortgage Network - Java Developer

Feb 2021 - May 2021 - Remote - Financial Services

- Maintained and extended the **Toolbox platform**, a key compliance and workflow tool used across the mortgage network.
- Delivered **bug fixes and new feature development** on a legacy stack, ensuring FCA-compliant behaviour and broker usability.
- Operated within a small, focused dev team, working across **Spring Boot, Struts, EJB3, and JSP**.
- Contributed to stabilising and incrementally modernising the codebase while supporting live service delivery.

Technologies: Java, Spring Boot, Angular, Struts, EJB3, JSP, IntelliJ, Linux, GitLab

Samsung - Java Developer

Oct 2018 - Feb 2021 - Cambridge (Onsite & Remote) - Mobile / Embedded Systems

- Contributed to **automated testing tooling** for Android devices, used globally to benchmark RF connectivity and performance.
- Maintained and extended a **Java-based orchestration application** coordinating test execution across hardware setups.
- Implemented **JUnit and integration tests**, user-driven enhancements, and critical bug fixes across Java, Bash, and Python layers.
- Ensured seamless interaction between test scripts, Android devices, and a central results processing system

Technologies: Java, Python, Android SDK, Bash, IntelliJ, Linux, Git, Gerrit, JUnit, TestNG, Mockito, Jira, Agile/Scrum

Nokia - Java Developer

May 2018 - Sept 2018 - Cambridge - Video Ad Delivery / Media Streaming

- Built **RESTful Spring Boot microservices** to serve re-encoded, personalised video ads on-the-fly based on user streaming profiles.
- Developed new functionality in **Dockerised backend services**, contributing to a scalable content delivery pipeline
- Supported QA by maintaining and extending **Python-based simulators** used for automated testing
- Delivered unit and integration test coverage using **JUnit, Mockito, and TestNG**

Technologies: Java 8, Spring Boot, Docker, Spring MVC, Eureka, Zuul, MySQL Cluster, Python, IntelliJ, Git, GitLab, Jira, Linux, Agile/Scrum

RS Components - Java Developer

October 2016 - April 2018 - Corby - Infrastructure Modernisation & eCommerce

- Led upgrade of legacy tech stack to enable a high-pressure **data centre migration**
- Contributed to multiple follow-on projects, including:
 - Migrating the entire eCommerce site to **HTTPS-only**.
 - Implementing **China-specific regulatory changes** for regional compliance.
 - Rewriting the B2B eCommerce solution using **Spring Boot microservices** in preparation for cloud migration.
- Refactored and containerised **legacy servlet-based Java code** into modern **Docker-based microservices**, deployed to physical servers with a view to future cloud migration.

Technologies: Docker, Spring Boot, mongo, Seam, Struts, Oracle, Java, Spring MVC, JBoss, Linux, Apache, JPA/hibernate, Agile/Scrum, RESTful Web Services, SOA continuous build, JUnit, TestNG, Mockito, Jira.

BGL Group - Java Developer

Nov 2015 - Feb 2016 - Peterborough - Insurance & Telematics Integration

- Contributed to the **O2 Telematics** project as part of a large Agile team.
- Designed and implemented the integration of **O2's SSO system** into BGL's internal services, enabling secure exchange of telematics data with providers and customers.
- Worked across **RESTful APIs (O2)** and **SOAP services (BGL)** to bridge legacy and modern systems.
- Delivered work in a **high-compliance insurance context**, with careful attention to data security and integration reliability.

Technologies: Java, Mule ESB, Tomcat, REST, SOAP, SSO, Git, Jira, Bamboo, Confluence

MoMo Group Ltd - Java/Scala Developer

Ian 2015 - Nov 2015 - Cambridge - Fintech Startup

- Delivered backend services for **MoMo Top** (global mobile top-up via PayPal) and a new **mobile banking application**.
- Quickly upskilled in **Scala**, moving from initial Java work to core feature development using **Akka** and **Scalatra**.
- Designed and implemented key product functionality as part of a **small Agile team**, collaborating closely with senior management on high-priority initiatives.
- Built RESTful APIs and service-oriented components to support mobile-first user experiences in global financial contexts.

Technologies: Scala, Java, Akka, Scalatra, MySQL, MyBatis, T24, Tomcat, Jetty, Nginx, Linux, Jira, Bitbucket, Bamboo, Confluence.

Jagex Ltd - Java Developer / Web Systems Developer

2013 - 2014 - Cambridge - Games / Online Services

- Maintained and extended the **Microtransaction (MTX) platform** powering in-game and app-based purchases for Jagex titles.
- Delivered both **customer-facing applications** and critical **internal RESTful services**, supporting online game infrastructure.
- Contributed to story estimation, task breakdown, and delivery planning within an **Agile Scrum team**.
- Maintained rigorous **automated test suites** (unit, integration, regression), ensuring platform reliability across services.
- Built service-oriented backend components and participated in cross-team software-as-a-service (SaaS) integrations.

Technologies: Java, Groovy, Spring MVC, JPA/Hibernate, Postgres, Informix, Neo4j, Infinispan, RabbitMQ, JBoss, Linux, Nginx, Git, Eclipse, Jira, JUnit, TestNG, Mockito.

PCMS - Java Developer

2011 - 2013 - Huntingdon - Retail Software (ePOS)

- Delivered a custom **Electronic Point of Sale (ePOS)** platform for a Tier 1 Australian retailer, completing the project **three months ahead of schedule** and **under budget** - a first for the company.
- Extended the core **BeanStore** product to meet client-specific requirements across a large retail estate.
- Worked in a newly formed **Agile Scrum team**, contributing to sprint planning, story breakdown, estimation, and technical delivery.
- Developed features and fixes against **customer-defined acceptance criteria**, and collaborated with QA and business analysts to ensure quality.
- Supported internal testing teams by providing fixes, guidance, and context on implementation and expected behaviour

Technologies: Java, Spring MVC, Struts, JPA/Hibernate, DB2, Oracle, JBoss, WebSphere, Linux, Mercurial, Eclipse, JUnit, TestNG, Mockito, iText, Maven, Crystal Reports, Jira.

TravelTainment Ltd - Developer

2010 - 2011 - Peterborough - Travel Tech / eCommerce

- Developed and maintained **enterprise web applications** used by travel agents and tour operators worldwide, built using **Java, PHP, and Seam**.
- Created and maintained **data adaptor services** to transform and standardise inbound formats (e.g. flat files, SOAP, REST, custom XML) into internal representations for processing and caching.
- Sole developer for a **Spring Web Flow-based product** targeting international markets, from initial design to delivery.
- Actively contributed to **international Agile teams**, collaborating across time zones and disciplines.
- Involved in **technical interviewing**, assessing candidates and advising management on hiring decisions.

Technologies: Java, PHP, Seam, Spring Web Flow, jQuery, JBoss, JBoss ESB, XSLT, JPA/Hibernate, DB2, Oracle, MySQL, LDAP, Linux, SVN, Maven, JUnit, TestNG, Eclipse, Jira.

Whistlebrook Ltd - Analyst Developer

2004 - 2010 - St Ives, Cambridgeshire - Fintech / Bespoke Software

- Delivered full lifecycle software solutions for high-profile clients including **Suzuki GB, TNT, and major UK building societies**.
- Hands-on across **analysis, estimation, development, testing, documentation, deployment, and 3rd-line support**.
- Led technical handovers, authored support documentation, and provided ongoing assistance for **legacy systems** across financial products
- Acted as on-call escalation contact for **business-critical deployments**, including on-site visits and direct client liaison.
- Co-founded and maintained internal **IT infrastructure**, later supporting a dedicated infra team in 3rd-line capacity.
- Provisioned new development environments: **virtual machines, OS installs, hardware setup**, and complete application stacks.

Technologies: VB.NET, C#, Java, SQL Server, Oracle, legacy MS Access systems, IIS, Windows Server, VMWare, bespoke ETL tools, internal DevOps workflows

Open Source & Personal Projects

Sphinx.chat - Contributor (2023, Paid Bounty Work)

- Contribute GoLang, Node.js, and Docker-based features to a Lightning Network-powered chat, social, and payments platform.
- Completed paid bounties in areas such as protocol integration, service containerisation, and testing infrastructure.

Selected Personal GitHub Projects

- **ip-monitor** - Public

Discord bot written in **Go** to monitor IP changes and broadcast updates; includes pinned message sync and basic alerting.

- **go-telegram-alert** - Public

Lightweight **Go** logger extension that forwards logs to **Telegram**, ideal for low-footprint services

- **GPT-Whisper-captions** - Public

Subtitle generator using OpenAI's Whisper API and **Go**, producing embedded captions from transcribed video audio

- **xlsReader** - Public
Go library for reading legacy .xls Excel files; maintained fork with improvements and usage documentation
- **ace-loto-backend / ace-loto-pwa** (*Private*)
Complete **GoLang + TypeScript** stack for a Lock-Out Tag-Out (LOTO) management PWA; includes QR code-based check-in flows, audit logs, and API validation tools
- **my-payment-gateway** (*Private*)
Custom **Go** microservice to simulate and validate card payment flows with support for test harnessing and telemetry.
- **SliceWise / rconDash / seo-stuff** (*Mixed visibility*)
Tools ranging from Minecraft server dashboards to content automation and SEO auditing, built for internal use and learning
 - Additional private projects span domains including DevOps, eCommerce, API design, and developer tooling - frequently built using Go, Docker, Kubernetes, and JavaScript/TypeScript

Transferability:

Experience gained in fintech, retail, and e-commerce is highly transferable to SaaS, infrastructure, Web3, public sector, and regulated industries. Comfortable working across domains where performance, security, and team agility are key

Why Me?

I'm the person teams turn to when something's complex, messy, or stuck. Whether refactoring a legacy system, launching a new service, or developing internal tooling, I focus on leaving systems clearer, teams faster, and outcomes stronger. Trusted to work independently or lead delivery when it matters, I've built a career on pragmatism, depth, and delivering results.

Contact

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- **Company:** acewebservices.co.uk
- **Location:** Cambridgeshire, UK (Remote-friendly)