

Craig Wardman

Personal Details

Name:

Craig Wardman (BSc. Hons)

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British

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Synopsis

Software Architect and Developer with over 20 years of commercial experience. I specialise in the design and delivery of high-performance, cloud-native systems, with expertise across the entire development lifecycle including:

Architecture	Cloud-native system design, microservices, event-driven architecture (EDA), DDD, CQRS
Cloud & Platform	AWS (EKS, Lambda, DynamoDB, SNS/SQS, S3, API Gateway, etc.) Azure (AKS, Functions, CosmosDB, Event Grid, Web Apps, etc.)
Engineering	C#/.NET, Node.js, Next.js, React, TypeScript
Infrastructure/DevOps	Terraform, Helm, Kubernetes (K8S), CI/CD pipelines

I really care about delivering great software and thrive on doing everything I can to facilitate a successful delivery.

Key Skills

Software & System Architecture

- **Strategic System Design:** Experience designing distributed, scalable systems using **Microservices**, **Event-Driven Architecture (EDA)** and **Domain-Driven Design (DDD)** principles to meet high-scale business requirements.
- **Architectural Patterns:** Proficient in implementing **CQRS**, **Onion/Clean Architecture** and **Bounded Contexts** to ensure system maintainability and separation of concerns.
- **Cloud & Container Strategy:** Experience architecting solutions for **AWS** and **Azure** environments, using both containerised **Kubernetes (EKS/AKS)** and **Serverless** paradigms.
- **Technical Documentation:** Capable of producing clear architectural blueprints using **C4 modelling** and other diagramming approaches to facilitate communication between technical teams and stakeholders.

.NET & High-Performance Coding

- **Expert Backend Engineering:** Extensive experience across the **.NET ecosystem** (Framework, Core and .NET 8+), developing high-throughput **APIs** and services with a focus on **SOLID** principles and clean code.
- **Performance Optimisation:** Skilled in identifying and resolving system bottlenecks using **dotTrace** and **BenchmarkDotNet**. Focus on achieving optimal throughput in data-intensive environments.
- **Concurrency & Memory Management:** Proficient in building thread-safe, efficient systems using asynchronous programming and parallel processing to handle high-concurrency workloads.

Full Stack Web Development

- **Frontend & UI:** Experience building responsive, dynamic web applications using **Next.js**, **React** and **TypeScript**. Focus on creating clean, performant interfaces that integrate seamlessly with backend services.
- **API Development:** Proficient in designing and building **RESTful** and **RPC APIs** using both **.NET** and **Node.js**, with experience handling complex authentication flows (OIDC) and optimized data transfer.
- **Modern Web Tooling:** Skilled in using libraries like **Tailwind CSS** for efficient styling, or **MaterialUI/NextUI** for components, supported by unit and UI automation testing (**Jest**, **Cypress**) to ensure functional reliability.

Cloud & Platform

- **Cloud-Based Solutions:** Experience designing and deploying software solutions across **AWS** and **Azure** using a variety of **PaaS** technologies.
- **Serverless & Eventing:** Proficient in building event-driven systems using **AWS Lambda**, **Azure Functions**, **EventGrid**, **EventBridge**, **SNS/SQS** and **Kafka**.
- **On-Demand Compute:** Experience developing and hosting scalable web applications and serverless logic designed for elastic demand.
- **Containerisation:** Practical experience using **Docker** and **Kubernetes** to create and deploy applications both on-premise and into cloud-hosted clusters (**AKS/EKS**).

Platform Engineering & CI/CD

- **Infrastructure as Code:** Experience managing cloud-based environments using **Terraform**, **Helm** and **Bash** to support application deployments across AWS and Azure.
- **Automated Delivery:** Capable of designing and maintaining **YAML-based pipelines** (Azure DevOps, GitLab, Bitbucket) that incorporate automated testing, quality gates and code coverage metrics to streamline the release process.
- **Automated Testing:** Proficient in implementing comprehensive testing strategies, from **unit tests** to **BDD** suites using **SpecFlow (Reqnroll)** and **Cucumber.js**; this includes building "pipeline-ready" integration tests, designed to automatically manage their own dependencies to ensure consistent execution within **CI/CD** build environments.

Data Persistence (SQL & NoSQL)

- **Relational Expertise:** Extensive background with **SQL Server**, including schema design, normalisation, indexing strategies and stored procedure optimisation.
- **Distributed Data:** Practical experience implementing non-relational and document-based storage solutions, including **CosmosDB**, **DynamoDB**, **Redis** and **Kafka**, using formats like JSON, ProtoBuf and Avro for high-throughput messaging.

Misc

- Developer tooling - Rider, VS Code, Visual Studio, NPM, NuGet, Git etc.
- Agile methodologies - SCRUM, Kanban etc.
- Personal skills – mentoring, collaboration, problem solving.
- Operating systems – Linux, Windows

Experience

Jan 2018 – Present (Software Development Consultant / MD at Pragmatech Software Solutions)

In 2018 I founded “Pragmatech Software Solutions Ltd” – providing contract and freelance based software development consulting. Below shows the details of some of the projects I’ve been involved with in this capacity:

Jet2Holidays – “Search Migration” – Contract [extended] (Jun 2025 – CURRENT)

Having played a key role in the original development of the Jet2Holidays Search Engine, I was asked to consult on this subsequent phase of the project, providing subject matter expertise along with architecture and software development support to aid the client in fully sunsetting their legacy search system in favour of the new platform.

The key areas of focus for this engagement were:

- **Architecture and Development:** Working with the Jet2 architects and dev teams to design and build the necessary system changes and new features required to support the initiative. This involved using various **AWS** based technologies such as **SNS/SQS**, **DynamoDB**, **EKS** as well as **Kafka** with code written in **C#** and supported by **SpecFlow** tests.
- **Documentation and mentoring:** Ensuring that the wider Jet2 development teams understood the mechanics of the search platform. I provided documentation, conducted mentoring sessions and delivered presentations to effectively transfer this knowledge to the internal teams.
- **Accuracy and Performance:** Investigating and resolving inaccuracies and system performance issues by leveraging my deep understanding of the search system. I collaborated with the business to analyse supplier systems and designed/built the necessary code changes to achieve the desired result with minimal performance impact.

Track-Metrics – “TGSS” – Contract (Jan 2025 – May 2025)

My 2nd project in succession for Track-Metrics, providing similar services to the previous engagement.

This project was to build a new cloud based multi-tenanted system for storing and interrogating telematics data from in-vehicle tracking devices, to create a modern, cross device geographic real-time view of vehicle tracking data, journey tracking and to lay the foundation for a feature rich web platform. Working in **.NET** and **Next.js** in **AWS** using an event driven architecture (**AWS Lambda**, **PostgreSQL**, **DynamoDB**, **SNS+SQS**, **API Gateway**, **S3**) etc. I played a key role in setting up the full stack architecture including **React/MUI/SSR** on the front-end and **ABP/APIs** on the back-end. I also setup test automation using **Reqnroll (BDD)** and created **CI/CD** pipelines using **Terraform** for automated build and deployments of the new components. Unfortunately due to funding issues this project was halted.

Track-Metrics – “MANTIS Recon” – Contract [extended] (Feb 2024 – Dec 2024)

Working as a software development consultant to assist the client in building a new cloud based multi-tenanted web application for monitoring vehicle telematics data, vehicle events and video streams in real time.

Providing input on the **architectural design** and technology choices, I also played a key role in creating the **.NET** and **Next.js** code-base with **OIDC** authentication, several 3rd party integrations and some complex video streaming synchronisation. Implementing an event driven architecture using **AWS Lambda**, **PostgreSQL**, **DynamoDB**, **SNS+SQS**, **API Gateway**, **S3** etc. I also setup test automation using **SpecFlow** and created **CI/CD** pipelines for automated build and deployments. The **AWS** cloud infrastructure was built using **Terraform** and **CloudFormation** following the “AWS well architected framework”.

PSS – Testimonial-Hub.com (Feb 2023 - Present)

As part of my expansion of services available through Pragmatech, I have created a B2B SaaS offering that enables businesses to easily capture and showcase their customer testimonials online.

The platform is built using **Next.js** with **SSR** for the **React** web UI and for the provision of **edge API** services. The site uses a custom **passwordless authentication** system built with **next-auth** and incorporates the usual **GDPR** compliance, such as cookie and marketing **consent management**. The back-end is built using **.NET 7 APIs** together with **Azure Functions** using **Azure Event Grid** and **Mongo/CosmosDB** for data storage and communication. The site is deployed on **Azure** using **Azure Web Apps** and uses public/private **VNETs** to protect against unauthorised access to data.

The platform includes several external integrations, such as **Brevo CRM**, **Stripe**, **SendGrid** and **Google Analytics**.

Jet2 – “MyJet2” – Contract [extended] (Jan 2022 – Dec 2023)

Played a key role in the design and build of the new “myJet2” single customer account platform.

Starting in the very early phases of the project I collaborated with the Jet2 technical team and business analysts to define the overall **architecture** and tech stack that would best serve their objectives.

During the POC phase, I led efforts to scaffold out the new solution which incorporated **Next.js**, **Headless Sitecore**, **OIDC authentication** (through a 3rd party **CIAM** integration) and several **.NET 7 APIs**. This foundational work established both the codebase and effective working practices.

As the project progressed I continued to provide **coding expertise**, **architecture guidance** and **mentoring** to facilitate the design and development of a cohesive platform, extending to several other existing systems and mobile app.

A secondary objective of the project was to move into **Azure cloud hosting**, so I was closely involved with the cloud and platform teams to establish a working **deployment** for the new tech stack and to lay the foundation for further cloud migrations.

Morses Club – “Connect” – Contract [extended] (July 2021 – Dec 2021)

Designed and built a suite of **cloud based APIs** to facilitate their new back-end system and updated business processes. Using **.NET 5/6** and **AWS** cloud infrastructure to support a **React Native** mobile app, using an **event driven microservice architecture**. I also worked alongside the platform operations manager to design and build a **GitOps** workflow using **GitLab**, **Terraform** and **Helm**.

Shelby Finance – “LMP” – Contract [extended] (Apr 2020 – July 2021)

Facilitated the client’s on-boarding of a new back end loan management platform and re-writing of their customer facing website. The first part of the project was to understand the current systems and new **business requirements** to help to **design** an **architecture** which would cater to the new requirements, with minimal disruption to the live systems and to create a layer of **abstraction** between the back end and front end systems for future proofing.

Based on these designs I then provided **C# software development** services using **ASP.NET Core** and **SQL** to deliver the “middle-tier” **APIs** necessary to accomplish the desired result as well as providing support in the go-live/migration process.

Jet2Holidays – “Search” – Contract [extended] (Feb 2018 – Mar 2020)

Software developer working on the e-commerce platform behind the Jet2Holidays website, using **ASP.NET WebAPI (C#)**, **Sitecore CMS** and **Vue.js**. One of the more involved pieces during this time was working on a new high performance accommodation search and pricing engine using **.NET Core**, **Kafka**, **Akka.NET**, **Docker** and **Kubernetes** I helped to create an **event driven micro service** with complex **real-time** pricing algorithms with a strong emphasis on **performance** and accuracy. I also helped to establish a **build/deployment pipeline** capable of delivering **.NET containers** to **Kubernetes** environments using **TFS**, **Docker** and **Helm**.

Kinetic – Aureus – Contract (Jan 2018 – Feb 2018)

Providing help, support and guidance to the new development team of Kinetic's flagship "Aureus" product. This is a large **Microsoft stack Azure based project** with many components, which I designed and built while working for Kinetic. I was offered a short term contract to help mitigate the risk of outsourcing the project, by providing my expertise and knowledge of the system.

Feb 2015 – Dec 2017 (Kinetic) – Solution Architect & Development Lead

In February 2015 I was promoted within Kinetic to **Solution Architect and Development Lead**. Continuing my work as a developer but now also leading the development team tactically and operationally. My role consisted of such things as **defining standards and practices**, following the **Agile** methodology, **source control management**, setting up of **CI/CD** pipelines, creating & managing an **Azure PaaS environment** and providing support to the business and colleagues. I was still involved in the implementation of the software architecture, from providing various levels of high level **architecture designs** to writing the code in **C#**. We made the transition to using **ASP.NET MVC** and **React** as our front end web technologies and using **ASP.NET WebAPI** microservices for separation of the various components in the software. We also adopted **domain driven design** techniques and it's supporting architectures (**OOP**, **IoC**, **Domain Modelling**, **Repository Pattern** etc.) in the core code. Plus the new platform which was developed under my guidance was built using **Azure PaaS cloud services** such as **Web Apps**, **blob/table/queue storage**, **AAD**, **Redis cache**, **Azure Search**, **SQL Azure** and more - all of which I was involved with from a planning/design perspective but also hands on technical perspective.

Mar 2010 – Mar 2015 (Kinetic) – Senior Developer

I returned to Kinetic Worldwide as a **senior developer** using **ASP.NET** in VB and C#, building tools that are specifically aimed at the specialist OOH media planning teams. During this time, amongst other things, I worked on several complex **reach and frequency calculation models** from different global vendors, **optimising the algorithms** for speed and building innovative new concepts on top of the underlying outputs. The systems I built in audience measure were industry leading at the time and won me a lot of praise within the industry. Building the core software in **c#** but now with **Silverlight** and **WCF**.

July 2009 – Jan 2016 (HelpFindMeA.co.uk) – Lead Developer/IT Director

Alongside my permanent employment, during this time I acted as **IT Director** for a company I started with 3 others. In this capacity I **designed, built and maintained** an online shopping portal **optimised for search engine friendliness**, to generate product leads for businesses and to help consumers find the best deals on products across multiple sections. Written in **ASP.NET**, **c# n-tier architecture** and **MS-SQL** backend with many **integrations** such as xml feeds with clients and 3rd party advertising channels, CAP automotive data, vrm lookup, geocoding, sagepay payments and more. Unfortunately this business did not generate enough revenue to continue and the site has now closed.

Older work experience (2005 - 2009): - Software/Web Developer

Since graduating in 2005, I worked as a software/web developer predominantly using the Microsoft development stack of **.NET (ASP.NET/C#)** with **MS-SQL** data layer - building e-commerce websites, CMS web applications and various other web based applications.

Qualifications

1st Class BSc (hons.) - Software Development Applications

Higher National Diploma - Software Engineering

AVCE - Information and Communication Technology (ICT)

Misc

- ISEB Intermediate Certificate in Enterprise and Solution Architecture