Craig Wardman

Personal Details

Name:
Craig Wardman (BSc. Hons)

Nationality:
British

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West Yorkshire

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Synopsis

Over 18 years of commercial development experience, with expertise across the entire development lifecycle including:

Backend	C#/dotnet, APIs, domain modelling, SOLID, OOP, BDD, TDD, performance optimisation.
Frontend	Next.js, React, Edge APIs, JavaScript/TypeScript, Node.js, authentication.
CI/CD	Build pipelines, test automation, release pipelines, GitOps/DevOps, IaC.
Cloud	Azure, AWS, serverless functions, Kubernetes, NoSQL, Kafka, Event Grid, SNS/SQS.
Architecture	System design, micro services, event driven, documentation as code, C4, PlantUML.

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

Key Skills

Software & System Architecture

I have a great understanding of **software & system architectures** and their concepts and benefits, at a technology agnostic level. This allows me to design elegant solutions using known technologies and to quickly pick up new paradigms as technologies/implementations evolve.

In terms of software architecture, I am comfortable designing and building applications using **multi-tier architectures** such as **n-tier** or **onion** architecture. I work with "clean code" in mind to create testable/reusable/maintainable code, employing the techniques of **OOP & SOLID principles** and applying **design patterns** to solve problems in familiar ways. I frequently use the principles of **Domain Driven Design** such as **domain modelling, bounded contexts, repository pattern, CQRS** etc.

In terms of **system architecture**, I have designed and built large multifaceted applications by employing the use of both **distributed micro service & event driven architectures**; considering the blend of on-prem, cloud and containerized infrastructure.

.NET

I have been working in **.NET** for pretty much my entire career, starting with **.NET Framework**, then **.NET Core** and now keeping up to date with the latest **.NET** releases. Writing **C#** within the **Microsoft development stack** is my natural habitat and is where I can really excel with my approach to problem solving, whilst reflexively adhering to clean coding standards and implementing elegant software architectures.

I also have a lot of experience in **optimizing** and **performance** tuning code, where performance is a necessity (such as: carefully choosing/refining algorithms, using **dotTrace** to inspect code performance, using **parallel code/threading/AKKA.NET** and using **asynchronous programming**).

Full Stack Web Development

Aside from building back-end **APIs** (**RESTful** and **RPC**), I am also comfortable building responsive and dynamic web applications using **Node.js** based technologies. In particular focussing on **Next.js**/**React** but also with experience using other front-end frameworks and libraries such as **Vue.js, Tailwind** and **Bootstrap.** I have built web applications using **JavaScript** & **TypeScript** using with modern design patterns and including writing unit tests (e.g. **Jest**) and UI automation tests (e.g. **Cypress**).

Cloud / Containers / Serverless

I have worked with both **Azure** and **AWS** products to design, develop and deploy cloud based software solutions using **PaaS** technologies including **web** applications, **serverless** functions (**Lambda** / **Azure Functions**), **SQL**/**NoSQL** based storage (**CosmosDB/MongoDB**/**DocumentDB/Azure SQL**), **eventing** systems (**EventGrid, EventBridge, SNS/SQS, Kafka**) and more. I have also used **Docker** and **Kubernetes** to create and deploy containerized applications, both on-prem and into cloud hosted Kubernetes clusters (**AKS/EKS**).

CI/CD & Testing

I strive to uphold the best software quality and streamlined code delivery processes whenever possible, such as writing and maintaining **unit and integration test** suites (e.g. using **NUnit**, **Jest**, **SpecFlow**, **Cucumber.js**, **Cypress**) as well as incorporating those tests and their metrics into **automated build and release pipelines** (e.g. generating test results and coverage reports on pull request and adding quality gates and PR policies).
I have worked with **Azure/GitLab/GitHub YAML** pipelines to create build and release processes which allow for **GitOps** or **DevOps** style management of environments (e.g. **infrastructure as code**) and application deployments, using tools such as **Helm** and **Terraform** as well as provider specific CLI tools and **Bash**.

SQL / NoSQL

I have been using relational databases since I was at university and have designed and built many **SQL Server** based solutions, including **normalisation** processes, **ORM** integration, defining and creating **indexes**, **stored procedures** and **performance optimization** etc.

I have also used several different technologies for storing non-relational, key/value, or document based, data such as **CosmosDB, Redis, Kafka, Elastic** etc. using **JSON, ProtoBuf, Avro** etc.

Misc

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

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:

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 micro service 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.

Education

2004 - 2005: Bradford University
2002 - 2004: Bradford College, Higher Education.
2000 - 2002: Bradford College, Further Education.
1995 - 2000: Royds Secondary School, Oulton, Leeds.

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

Employment History

- Pragmatech Software Solutions - Software Development Consultant / MD (Jan 2018 - current)
- Kinetic - Solution Architect & Development Lead (Feb 2015-Dec 2017)
- Kinetic - Senior Developer (Mar 2010-Feb 2015)
- WMG - Software Developer (July 2008-Mar 2010)
- Kinetic - Software Developer (Mar 2007-July 2008)
- Adtec Software - Software Developer (Sep 2005-Mar 2007)