

Marcus Bullock
Senior Software Developer

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I am a senior software developer with 10 years experience at both corporate and startup level with companies in the trading, finance and travel sectors.

My greatest qualities lie in web development and leading technical projects with full oversight of design and implementation. I have strong full stack experience from client-side to database, and also in product strategy, with great familiarity in breaking down client requirements into technical projects.

My main skillset includes .NET (C#) and ReactJS/Typescript and I have demonstrable experience using these technologies (and others) to build applications with huge userbases.

Technical Overview

Languages: C# .NET, ReactJS, Typescript, Blazor, ASP.NET, Ruby

Database: SQL Server, Postgres

Architecture: AWS Lambda, S3, EC2, Elastic Beanstalk, RDS, and many more / Azure services like pipelines

Other: Elastic search / Elastic stack, Entity Framework, Git / TFS, TeamCity, Octopus, Azure

Methodologies: TDD with good knowledge of modern testing frameworks from unit testing to UI testing and everything in between, clean code, SOLID design principles, good design patterns

Employment Experience:

November 2019 – present day

Senior Software Developer, The Adventure People

I have been part of a small and agile team of developers that has grown The Adventure People from a small proof of concept startup in its infancy into a growing market competitor that now makes £25 million in revenue annually and continues to grow at a rapid pace.

During these 5 years, I have worked closely with the company's CEO and head of technology in leading and managing projects for the company's website and back end systems. The main website, theadventurepeople.com is a customer facing ReactJS application that allows users to book tour based holidays and flights to destinations all over the globe. The website receives millions of views a year. It has been particularly rewarding to be close to business decisions and strategy, and to lead projects from start to finish.

Below is an overview of the main projects I worked on:

- ***Website development lead for in house back office system, written in Blazor.***

I was tasked with building the new back office system in Blazor, a technology my predecessor had chosen. Transferring my ASP.NET experience to Blazor, I quickly became well-versed in the technology and built the back office system from the ground up, working closely with the CEO and agent team lead to break requirements down into technical tasks.

The system is fundamental to the running of the business as it centralizes all the functions of the business into a single powerful application that is able to manage all our products, as well as price them via the accounting system I wrote. There is also other bespoke functionality like integration with the Stripe API, allowing us to bill our users and create invoices, as well as integration with AWS services, for example queue services (SQS) that queue emails to our email service, or other processes via AWS Lambda.

The tech stack of the website is entirely .NET based and is hosted in AWS, and deployed via Azure Pipelines while hosted in AWS.

- ***Website development lead for client management system, written in Blazor***

I worked closely with a 3rd party UI designer to design and implement a new client management website for our clients to administer the tours they sell, their prices and the bookings we provide them.

This was also written in Blazor with the same tech stack as our in house systems, and very similar functionality though tailored more towards our clients and their requirements.

- ***Website redesigns, React, Typescript, C#, CSS, Figma design software***

I worked with our tech lead and 3rd party designer to implement new designs based on website analytics. With a focus on our mobile users who comprise around 90% of our users, we worked on our main React application using a mobile first responsive approach to tailor our designs towards our users.

- ***Data import projects***

I wrote importer applications that hit various holiday provider APIs to import their data, price it and transform it into our data model. These were all written in C# using .NET's in-built HTTP functionality and these processes are run on a schedule via AWS Lambda and Scheduler every night, in order for us to keep our products and their prices up to date.

One of most ambitious projects I worked on here involved a big data import from a flight provider. Millions of flight details needed to be imported on a schedule, transformed into our database model, and then indexed via Elastic search for lightning fast search speeds.

I wrote the importer using C# which bulk inserted the data into our database, then processed and the results into Elastic search using the Elastic NEST C# API. These flights are an essential

offering and according my CEO, essentially makes us the first tour-based holiday operator in the world to offer bookable flights directly on their website with their tour products.

- ***Stripe webhooks***

I integrated our back end systems with the Stripe API / Webhook service which allowed us to react to payment events like invoices / payments paid to us and then react to that event accordingly in our system eg. Update payment records, send payment failure emails etc.

- ***AWS Lambda***

Wrote numerous bespoke processes in AWS Lambda for example nightly processes that billed customers or sent clients invoices. I also gained significant exposure to other AWS services like S3, EC2, Elastic Beanstalk, RDS, and many more.

June 2016 – November 2019

Software Developer, Trayport

I was part of the web development team that designed and built the company's client administration platform in React/TypeScript with a C# backend. This was a web application that allowed our company and clients to administer their traders, what they traded, and where they traded. Some of the notable projects I worked on at Trayport include:

- ***Joule Direct Administration mobile app and website application, greenfield project C# and React/Typescript***

I was a member of the web development team tasked with building an application for our traders and brokers to administer their traders, and their trading settings and permissions. The website had a C#, SQL Server backend and a React/Typescript front end. Despite being a CRUD application, we were still involved in the application's full scope within our entire trading systems i.e it was our responsibility to test our software with the trading systems as a whole and to check that the data we set via our application actually worked with the other applications it touched.

As such I gained considerable exposure to the trading systems as a whole which are all written in C#. I worked on these systems for bug fixes and for testing trade flows locally. I also used Joule daily, the company's flagship front-end trading gateway that our traders use to trade. I regularly made trades in our test environment and participated in "Trading Games" where we rigorously tested our systems pre-release. Our software is the principal trading software used in the European energy sector and its monopoly over the market means that these were incredibly important international business critical systems.

- ***Implementation of MIFID II regulations, C#/React***

Industry wide regulations for the energy trading sector arrived while I worked at Trayport. In order for our traders to comply with these regulations, we implemented numerous regulatory settings for our clients via our web application and tested these settings end to end, exposing us to a wealth of domain knowledge and numerous web-based tasks to allow our traders to administer these regulations via their client account websites and see this information in their trading software.

This involved minor front-end work in Joule, the company's main trading product which is written in old-school WPF but also good exposure to the company's back end systems in C#, as well as a wealth of work on our client administration application.

- ***Datawarehouse, C#, bespoke time series database software***

Towards the end of my Trayport career, we were tasked with integration our trade data into a time series database, provided by a 3rd party bespoke provider called OneTick. This involved almost re-writing our trading systems in C# to push trade data to a data warehouse which could then be sold as a product for the data to be queried. While this project was eventually cancelled, the team were again exposed to the trade lifetime and critical back end systems. After this project was cancelled, I left the company to pursue more React-based work, which I enjoy thoroughly and became a huge passion of mine while at Trayport.

December 2015 – May 2016 **Graduate, Makers Academy**

Makers Academy courses are intensive, highly selective 12-week web development and software design courses, tailored towards employment after completion. The course focuses on best practice and the tooling required to continue your learning journey to become a professional developer.

October 2011 – December 2015 **Senior Analyst, G3 Good Governance Group, London**

This was my first major career role, working at a corporate advisory/strategic consultancy company that worked with clients across the globe. My role here was as an analyst, starting out junior and ultimately becoming a senior analyst. This was mainly focused around political and commercial research for our clients who would contract us to investigate on a number of issues – cyber security, political and commercial investigations, liaising with legal entities to assist in criminal investigations, and open source/human-contact research. It was this role that introduced me to programming, as I worked in the cyber security department for more than a year and as part of my objectives, started various web development online courses.

May 2011- August 2011 **Internship, Standard Chartered Bank, London**

During a 2 month internship, I am working in the Corporate Affairs department of the world's leading bank in Asia, Africa and the Middle East. I worked on and aided internal and external communications for the bank, and the work largely consisted of helping with projects that improve the vision and mission statements of the bank.

Education:

2015-16: **Makers Academy Coding Bootcamp** – completion and job placement
Highly competitive industry-leading coding bootcamp with graduates placed in employment with hiring partners following completion.

2009-10: **School of Oriental and African Studies, London University** - Diploma with merit in Spoken and Written Modern Arabic

2006-09: **Birmingham University** - BA in Italian Studies, Single Hons. This included a year at the University of Florence, Italy.

2005: **Hampton School, Middlesex**

3 A levels (Spanish- A, French- B, English Language- B)

3 AS levels (Spanish-A, French-B, English- B)

10 GCSEs (Spanish- A*, French- A*, Italian- A*, English Lang- A, English Lit- B, Latin- B, Maths- B, History- B, 2 Sciences- B)