Daniel Batchford

SOFTWARE ENGINEER

Details

London
07857 561 969
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Links

Linkedin

GitHub

Portfolio

Skills

.NET Core

ASP.NET Core

WPF

.NET Framework

Docker / Kubernetes

SQL Server

Python

Azure Devops / Git

CI / CD

GraphQL

gRPC

Profile

Software Engineer with a solid foundation in computer science and hands-on experience in high-pressure environments. Experienced in full stack .NET development, from initial planning and requirements gathering to final deployment.

Employment History

Software Engineer, Red Bull Racing

MAY 2023 — MARCH 2025

Key Contributions:

- Developed internal ASP.Net Core gRPC and GraphQL API's for the vehicle performance group.
- Created, maintained and deployed WPF applications used for internal tooling.
- Improved real-time software for the race strategy group and external clients using .NET Core and ReactiveX.
- Upgraded user facing python libraries for access to internal APIs.
- Implemented client requests for a legacy .NET framework application.
- Created and upgraded ASP.NET Core CI/CD Azure DevOps pipelines, deployed as Docker images to a Kubernetes cluster.
- Actively engaged in code reviews and testing processes, ensuring high coding standards and reliability of the group's software.

Software Engineer Intern, Scuderia Alpha Tauri

JULY 2021 — JULY 2022

Key Contributions:

- Developed a .NET Framework WPF desktop application which processed data from the track, wind tunnel and computational fluid dynamics in a real-time context.
- Created bespoke plotting tools for the aerodynamics performance group to visualise data from a number of sources.
- Integrated and transformed large datasets from internal API's into a visual format used in the wider performance group.
- Managed the software life-cycle of applications, from the initial planning phase to deployment.
- Created Azure Devops CI/CD pipelines to automate software deployment.

Education

Bsc Computer Science, University of Birmingham

SEPTEMBER 2019 — JULY 2023

Grade: First Class Honours

Dissertation:

Formula One Historic Race Strategy Viewer & Model

- Developed a WPF desktop app for analysing historical Formula One race data.
- Implemented a novel spatial interpolation model to simulate tyre degradation, fuel mass impact, and traffic effects on the outcome of a race.
- Enabled users to tweak race scenarios (e.g. pit stop timing, tyre choices) and visualise the impact on race outcomes in real time.
- Integrated data from an external API into the application.
- Ensured efficient performance while processing complex race scenarios.

Kings College London Mathematics School

SEPTEMBER 2017 — JULY 2019

- A Level Mathematics (A*)
- A Level Further Mathematics (A*)
- A Level Physics (A*)
- AS Level Computer Science (A)

Farringtons School

SEPTEMBER 2005 — JULY 2017

- 7A*s, 4A's
- A* in Mathematics & English Language
- A in Additional Mathematics
- A in Statistics
- Academic Scholarship - 2012 - 2017

Projects

Doddle Work Experience

SEPTEMBER 2020 — SEPTEMBER 2020

2 week work experience with Doddle.

- Produced a Python Flask app to create a Slack bot, using Slack's Events API and Doddle's internal API's.

Kings Certificate

SEPTEMBER 2017 — JUNE 2018

Industry collaboration project with Arbor, a statistical company aimed at providing insights into educational data.

- Worked in a team of 4 to produce a GUI implementation of a statistical tool used to group multi - academy schools into groupings, based off specific data about an academy.