Sergio Azizi

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Skills

React | TypeScript | Node.Js | webGL | Three.Js | CSS/Sass | GSAP | Express | Pug | Prismic

AWS | Git | Jest | Cypress | Redis | postgreSQL | MongoDB & Mongoose | MatLab | Python

Professional Experience

2021 – present
London, UK

Full Stack Developer, *IMG Arena*

- IMG Arena delivers some of the worlds best sporting content through live-feeds, 3D and data-visualisation, streaming and betting services.
- As part of a cross-functional team, created front-end solutions for Tennis, Golf and UFC events to bolster fan engagement. **Typescript, React, GraphQL**
- Created a **Node.Js** back-end that serves data for live sporting events with minimal overhead for 100,000's of users. **RxJs, Typescript, Redis, GraphQL**
- Implemented interactive 3D views of golf courses that includes visualisation of live shot-tracking data. **Three.Js, WebGL, Typescript**
- Created a robust animation pipeline for our event-driven Tennis front-end. **React, Anime.Js**
- Conducted extensive End-to-End and Unit testing. **Cypress, Jest, React Testing Library**
- Conducted job interviews for new potential joiners.

2019 – 2021
Oxford, UK

Computational Fluid Dynamics (CFD) Engineer, *Vertical Advanced Engineering*

- Develop optimal designs for vehicle components (such as Formula 1 front wings, aircraft control surfaces) for clients across the Motorsport, Automotive and Aerospace Industries.
- Consulted clients on the planning and design strategy that best meet their time and budget requirements.
- Onboarded and coached Junior Engineers.
- Spearheaded the introduction of open-source technologies which have now become a company standard.
- Open-source also made cloud computing viable which led to massive cost reductions and faster turnover.
- Automated many CFD and post-processing workflows through **Bash** and **Python** scripts, which are now used by several engineering leads across the company.
- Keep on top of, and integrate the latest industry open-source developments.

2018 – 2019
Paris, France

Aerodynamicist, *Ascendance Flight Technologies*

- Led the CFD design activities for a hybrid Vertical-Take-Off-And-Landing (VTOL) aircraft. I closely collaboratedy with the CTO and the head of propulsion to define the aircraft at a conceptual stage and prove its viability.
- Started and led a transition from commercial to open-source CFD tools.
- Moved heavy computations to **AWS** and automated parts of our workflow through bash scripts.

2016 – 2016
Cambridge

Machine Learning Intern, *Centre for Scientific Computing, University of Cambridge*

- Received coaching in C++ and statistics and implemented several ML algorithms.
- Assisted a group a research students on their project about video reconstruction and compression.

Projects

2022 – 2022

A.P.O.D. Snippets

- Creative website, showing a collection of space-related events with interactive design elements. **Prismic, Express, Pug, GSAP, Sass, Three.Js, Typescript**

2021 – 2021

Safe Space

- Build as part of a three-person team - SafeSpace is a web app where users can meet in a 3D virtual environment. **Three.Js, Typescript, React**
- Users in close proximity will connect via audio and video feed. **WebRTC, Socket.io**
- Open 3D landscape. **Blender**
- Server-side physics engine. **Cannon.Js Node.Js, Express**

2017 – 2018

Unmanned Aerial Systems (UAS) Challenge, *Institution of Mechanical Engineers (IMechE)*

- Within a team of 6, designed and manufactured an aircraft capable of autonomous payload delivery and target reconnaissance, using a bespoke image recognition algorithm.
- Secured funding from the University of Swansea and University College London.
- Conducted wind tunnel testing and manufactured a carbon-fibre composite monocoque.

Education

2014 – 2018
London, UK

MEng Mechanical Engineering, First Class Honours, *University College London*

- Focus on Flight Dynamics and Aircraft Design

Publications

2022

Create an Elastic Material with THREE.Js