

Experienced in building and maintaining websites and scripts, using **React, Typescript, Node.js, Next.js, HTML, CSS, Python** and **REST APIs**, for products, services, and social media apps. Delivered web applications at a global engineering consultancy. Former structural engineer with 6 years' experience of team leadership and project management for projects up to £1m fee. A self-starter, leveraging creativity and analysis to ideate, develop, deploy, maintain and market projects.

WORK EXPERIENCE

DIGITAL CONSULTANT Mott MacDonald

Mar 2024 - Present

- Lead full-stack developer for an automated drawing checking web app using **Python, Flask, React**, and **Azure**. Utilised probability-based content identification on drawings. Created and divided trackable tasks to the team, adopting **agile methodology** to align development with budget and MVP priorities. Currently implementing **machine learning** custom model training for multi-project deployment. Projected **savings of £100k+** on a single project.
- Front-end developer on a hazard management web app using **React** (SPA + CSR), and **Typescript** with 2D mapping using **ArcGIS APIs**, 3D model interaction with **Autodesk Platform Services**, and **MaterialUI** components. Led feature interaction sessions with stakeholders to develop an effective product, suggesting a data import tool that enabled migration from legacy systems and secured our first client. Experienced with **Git** for version control, collaborative development, and **continual deployment** (CICD), conducted code reviews to **enhance efficiency** and ensure best practice commenting. Tool resulted in a **70% reduction of time** to record CDM risks in a collaborative environment, encouraging adoption and use. Deployed on 2 major UK construction projects.

PROJECTS

Sep 2020 - Present

- [Structural Papers](#) – Developed a **Next.js** (MPA + SSR) website for uploading, viewing, and commenting on exam papers, with **Firestore** for authentication and database management (**noSQL**). Created an algorithm to rate users and papers using reviews, ensuring quality uploads. Optimised **SEO**, including page optimisation, keyword research, and content creation, **achieving 5th rank on Google** for lead keywords. The site has 500+ users.
- [NeatNest](#) – Developed an authenticated booking website for house cleaners using **Next.js** (MPA + SSR). Implemented server-side actions and integrated **Stripe** for payments. Designed responsive, aesthetic UI with researched UX principles.
- Conducted technical analysis on NASDAQ stocks using **Python** with Pandas, NumPy and Matplotlib, leveraging stock price volatility and iterating for optimal input parameters, resulting in returns of 13% APR during testing.

STRUCTURAL ENGINEER Elliott Wood

Sep 2021 – Mar 2024

- **Led a team of 6** to design a £90m headquarters. **Communicated complex engineering ideas** to clients and stakeholders, facilitating discussions to implement optimal solutions. **Developed practical solutions** aligned with the client's and team's objectives. Completed the project within 80% of budget and in half the time of a typical design programme.
- Spearheaded outsourcing relationship to **reduce project costs by 25%**.

ASSISTANT STRUCTURAL ENGINEER Atkins

Sep 2018 – Sep 2021

EDUCATION

BENG (HONS) CIVIL ENGINEERING University of Sheffield

2015-2018

- First class achieved with 80%+ score leading to awards for Best Overall Performance in Final Two Years of Course and Best BEng student at Level 3.