Joe Winter

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Profile

I'm a dedicated and ambitious software engineer transitioning from a background in civil engineering, currently studying full stack engineering at makers academy. I have a master's degree in civil engineering and previously worked as a structural engineer. During university I did some coding during my dissertation which I found I was spending more time on than the engineering itself and I was drawn into the world software. This along with my passion for tech led me to make the change, hoping to merge my engineering skills into software development.

Projects

Multiplayer UI Game: A guessing game made with Node.js and React.js using Socket.io for real time updates. It was deployed using a GitHub CI/CD pipeline and tested with jest (backend), vitest (frontend) and playwright (end to end).

Acebook: A Facebook clone made with Express, Node, React and MongoDB, utilising JWT tokens for authentication.

MakersBNB: An Airbnb clone made in python and flask, set up user authentication and a built features to access and manipulate data stored in a database with PostgreSQL.

Battleships: A two player terminal game made in python, created applying TDD and pytest.

Bowling Scorecard: A terminal bowling scorecard made in node.js. Used unit tests and mocked the terminal interface.

Chitter: A twitter clone made in python and flask. Allowing users to post messages and tag other users.

Skills

Languages: Python, JavaScript, Kotlin	**Testing:** Jest, Vitest, Playwright	**Frameworks:** React, Express, Flask
Databases: PostgreSQL, MongoDB	**Tools:** Git, GitHub, VSCode	**Other:** HTML, Tailwind CSS, Sockets

Education

Maker's Academy   July 2024 - Current

A 16-week intensive bootcamp focused on software development with Python, JavaScript, React and Kotlin.

- Worked on multiple group projects, applying TDD, pair programming and debugging techniques
- Created full stack web projects, from the initial design stage to deployment.
- Gained skills in object oriented programming applying SOLID principle.
- Developed skills in using Git and GitHub for version control. Working in teams, merging branches, resolving conflicts and completed code reviews for smooth code integration.
- Working with databases such as PostgreSQL and implemented CRUD.

University of Brighton   September 2019-July 2023

MEng (Hons) Civil Engineering – Where I achieved a First Class with Honours.

Dissertation topic: *"The Non-Invasive Seismic Protection of the UNESCO World Heritage Site, the Tomb of the Kings in Cyprus."* The dissertation aimed to seismically protect a UNESCO world heritage site by designing and optimising a vibrating barrier (ViBa) for protection against Eurocode spectrum-compatible earthquakes using random vibration theory.

Awards: 2023 ICE Student Prize and the Dr Harry Arshi Memorial Award for Geotechnical Engineering

Heathfield Community College, Heathfield, East Sussex   2016-2018

3 A – Levels: Maths, Further Maths and Physics

Relevant Experience

Fairhurst – Structural Engineer   August 2023-June 2024

- Worked on a wide range of residential and commercial developments.
- Conducted site assessments analysing SI reports guiding the selection of foundation types for projects.
- Completed comprehensive site inspections to be able to efficiently review and design solutions.
- Use of engineering software such as well as creating spreadsheets to speed up tedious calculations.
- I was chosen to be the office safety supervisor and IT representative, managing the office software and hardware as well as any technology needs.