

Robbie Kirkbride

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SKILLS

Languages	Proficient: JavaScript, TypeScript, HTML, CSS, Ruby ~ Basic: Python
Libraries/frameworks	React, Node.js, Express.js, Tailwind, Jest, Cypress, RSpec, Sinatra
Architecture	MCV, Microservices, REST APIs
Tools	MongoDB, PostgreSQL, GitHub, JWT, Postman, Trello, Sequence Diagrams, MATLAB

EXPERIENCE

Makers Academy - October 2022 to February 2023

[Ecoliday](#) - MongoDB, Express.js, React, Node.js, JWT, Tailwind, Jest, Cypress

- o Eco-conscious travel planner created during my two week Makers final project in a five person Agile team.
- o Built from the ground up using the MERN stack in four 2-day sprints, each time incrementally improving the MVP to develop a consistently useable product.
- o Used three APIs (climatiq, geocode, google maps), with a total of eight calls made per search
- o Test-driven approach with over 90% coverage, refactoring in stages to adhere to the red-green-refactor workflow.
- o Enacted proper version control by creating branches, pull requests and reviewing code before merging.
- o My main responsibilities included to set up the carbon emissions API for the transport types, add the ability for users to sign up and the ability for users to make and save searches.

[Frontleft](#) - TypeScript, MongoDB, Express.js, React, Node.js, JWT, CSS, Jest

- o A festival planner app created solo since graduating Makers Academy, written with TypeScript
- o Built from the ground up using the MERN stack and created in under a week after I challenged myself to learn a new skill and build an app with it.
- o Implemented JWT authentication and password encryption to ensure the app was secure

COWI UK - Engineering consultant - January 2018 to October 2022

- o Worked on the development of in-house design software tools in VBA, using Git to make pull requests and undertake code reviews before releasing updates.
- o Used Python, Rhino and Grasshopper to filter and analyse Point Cloud Survey data of a cylindrical mast in order to reduce the scope of structural strengthening required.
- o Processed topographical data using MATLAB to create wind profiles and calculate structural loading effects.
- o Created Finite Element Analysis (FEA) models and led the fatigue analysis during design of the [Mumbai Trans Harbour Link](#).
- o Calculated the cradle to gate CO2e of [Bilsdale Mast](#) and delivered a design with approximately a third less CO2e than the original.
- o As a project manager I led a team, communicated with clients and adhered to quality assurance processes.
- o Founding member of a national internal network that organised conferences, technical and social events.

COWI UK - Structural Engineering Intern - Summer 2015 & 2016

EDUCATION

Makers Academy - Coding Bootcamp - October 2022 to February 2023

- o Coded in Ruby and JavaScript, but learned to be a 'language-agnostic' developer by building strong self-directed study skills. This has been proven by rapidly learning TypeScript since the course finished.
- o Used analytical thinking and a systematic approach to break problems down into manageable tasks, both in planning and production, which helped me establish a watertight TDD process and debugging techniques.
- o Regularly exercised my ability to explain problems methodically and concisely, for example by explaining how middleware could be used to check for JWTs and handle requests from the frontend conditionally.
- o Took on a mentee to whom I offered guidance, a supervisory trait carried forward from my previous work.

University of Bristol - MEng (Hons.) First Class - Civil Engineering - 2013 to 2017

INTERESTS

- o I enjoy experiencing cultures from around the World. A highlight of my travels to date was an 5-day unaided high altitude trek in the Peruvian Andes, which emphasises my thirst for challenges.
- o Keen footballer and runner. I regularly compete in a 5 aside football team and have completed two half marathons, with a third planned for April 2nd.
- o A lover of natural history. I dare you to read [The Golden Mole](#) and not feel awe and concern in equal measure.