

# JOE DODGSON

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Portfolio: [joedodgson.github.io/Portfolio/](https://joedodgson.github.io/Portfolio/)

## SUMMARY

Full-stack web developer with a background in engineering. Experience in interpreting requirements to implement appropriate solutions, breaking complex problems down into small steps. An able communicator, with a passion for problem solving and developing solutions which deliver automation and enhance user experience. I am excited to apply my skills and learn more as part of a fast-paced, quality-driven team to build better experiences for web users.

## TECHNICAL SKILLS

Frontend: HTML, Bootstrap, CSS, JavaScript, jQuery, AJAX

Backend: MySQL, MongoDB, Express, Node, Handlebars, Pug

## PROJECTS

**Fitness buddy** | <https://github.com/JoeDodgson/fitness-buddy> | <https://jdj-fitness-buddy.herokuapp.com/>

A website for gym-goers to find information about exercise technique. Users login or sign up, search for exercises and can add exercises to their favourites list.

- My roles: Created wireframe sketches, defined the database schema, set up the template engine, setting up HTML and API route handling, wrote the exercise search AJAX call to WGER API.
- Tools used: Express server, Sequelize, Pug, LESS, jQuery, AJAX calls, Heroku-deployment.

**Bookworm** | [github.com/JoeDodgson/Bookworm](https://github.com/JoeDodgson/Bookworm) | [joedodgson.github.io/Bookworm/home.html](https://joedodgson.github.io/Bookworm/home.html)

A webpage for book lovers to find information about books and add them to their read list. Users select a target read date for each book they add to their read list.

- My roles: Created wireframe sketches, implemented front end styling for the user's book list page and modals, wrote the book search AJAX call to Google Books API.
- Tools used: HTML, CSS, CSS grid layout framework, JavaScript, jQuery, AJAX calls.

**Code quiz** | [github.com/JoeDodgson/Code-Quiz](https://github.com/JoeDodgson/Code-Quiz) | [joedodgson.github.io/Code-Quiz/](https://joedodgson.github.io/Code-Quiz/)

A multiple choice coding quiz web page with highscore recording functionality.

- Designed a web page app that allows users to play a coding-themed multiple choice quiz. The user submits their score which is added to other scores in the local storage.
- Tools used: HTML, CSS, Bootstrap, JavaScript.

## EXPERIENCE

**Arup**

September 2016 - present

**Embedded Developer / Rail Engineer**

Solihull, West Midlands

Develops automation solutions for engineering design processes by communicating with engineering teams to interpret requirements and implement appropriate solutions, breaking complex problems down into small steps. Previously worked as a rail alignment design engineer, developing design solutions on complex rail alignment projects.

### *Key Accomplishments:*

- Led the integration of a report automation tool to successfully deliver over 480 design element statement report Word documents on HS2 Phase 2B hybrid Bill Civil Design
- Set up a champions network for the Track Compliance Tool
- Developed and submitted the rail alignment for 55km of twin track for HS2 Phase 2A hybrid Bill

## EDUCATION

**Full Stack Web Development:** University of Birmingham, UK

March 2020 - present

A 24-week intensive programme focused on gaining technical programming skills in HTML, CSS, Javascript, JQuery, Bootstrap, node.js, MySQL, MongoDB, Express, Handelbars.js & ReactJS.

**Master of Engineering (MEng) Honours Degree in Civil Engineering:** University of Nottingham, UK

September 2011 – July 2016

A 4-year integrated masters degree, covering a range of Civil Engineering design modules. Final year assignments included an individual research project and a group design project.