

# DEMPSEY PALACIO-TASCON

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[Personal Website](#) | [LinkedIn](#) | [GitHub](#)

## EDUCATION/QUALIFICATIONS

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### University of Warwick

Sept 2019 – Jul 2023

- MEng Discrete Maths (Maths and Computer Science) – Upper Second Class Honours

### Kings College London Maths School

Sept 2017 – Jun 2019

- A-Level grades: Further Maths A\*, Maths A\*, Physics A, Computer Science A (AS)

### Bacons College London

Sept 2012 – Jun 2017

- GCSEs: 8 A\* - B including 9 in Maths and A\* in Physics and A in Chemistry, Business and Computer Science

## PROJECTS

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### Bill Splitter – [Demo](#) [GitHub](#)

Jan 2025 – Feb 2025

- Developed a web application that uses AI to parse receipts and automatically split bills among users.
- Built with React and Redux for state management, ensuring seamless UI interactions and data flow.
- Integrated Google Generative AI for receipt scanning, enabling users to simply take a photo for itemized cost breakdowns.
- Designed a multi-stage setup process for editing items, charges, and allocating costs to users.
- Utilized TypeScript for type safety, Vite for fast development, and containerized deployment using Docker.

### Interactive Sudoku Web Application – [Demo](#) [GitHub](#)

Dec 2024 – Jan 2025

- Built a web-based Sudoku game with real-time chat using Go and Echo.
- Implemented WebSockets for real-time game updates and chat interactions between users.
- Integrated RapidAPI's Sudoku API to dynamically fetch puzzles with configurable difficulty levels.
- Leveraged HTMX for efficient client-side updates and templ for modular server-side rendering.
- Streamlined development with Golang Air for hot reloading and containerized the application using Docker.

### Portfolio and Blog Application – [Demo](#) [GitHub](#)

May 2024 – Nov 2024

- Developed a server side rendered portfolio and blog application using Go, Echo, HTMX, and Templ.
- Enhanced performance and SEO optimization through server-side rendering, caching and designed a visually appealing, responsive user interface using SCSS.
- Created RESTful APIs with Echo to ensure efficient data exchange to frontend and customisable sites with filters.
- Integrated Markdown to HTML Compiler Goldmark for ease of blog post redevelopment with greater flexibility in design.

## WORK EXPERIENCE/VOLUNTARY WORK

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### freeCodeCamp London – Software Engineer & Advisor

Sept 2023 – Current

- Assisted in planning, organizing, and executing software development workshops, enhancing participants' technical skills and confidence, resulting in a 20% uptick in attendance and participation.
- Provided support and guidance to club members, addressing their questions, and facilitating their learning journey.
- Organized and led technical workshops on various programming languages and software development methodologies, including Data Structures and Algorithms (DSA), System Design, and Agile development practices.
- Led website development, enhancing UI and accessibility to create an inclusive user experience.

## Technical Skills

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### Programming Languages

- JavaScript/TypeScript - Strong experience with frontend frameworks like React, building modular components.
- Java - Experienced in backend development using Spring Boot, including security and data handling.
- Go - Gained proficiency in high-performance API development, focusing on concurrency
- Python - Used extensively for data processing and machine learning in backend data pipelines.

### Databases

- PostgreSQL - Learnt officially during degree and sharpened skills by utilising it in various projects that required different schema/database designs (skills also transferable to other SQL based databases).
- MongoDB - self-taught for future projects where relational databases are not suited.

### Other Technologies:

- Git/GitHub - Active participant in collaborative development, contributing to open-source projects by properly utilising branches, forks and pull requests. Experience setting up GitHub Actions for linting, testing and deployment.
- Docker - Containerised several projects to improve performance on other machines.