Guillaume Portalier

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SKILLS

Programming Languages: JavaScript / TypeScript, Python, SQL (PostgreSQL, SQLite), HTML, CSS
Technologies: React, React Native, Expo, Nodejs, Express, RESTful API, FastAPI, Pytest, Jest, Babel, ESLint, Git

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WORK EXPERIENCE

Mastering Engineer, Micron Mastering   *Sept 2020 - Current*

- Managed the full project lifecycle for 100+ technical audio mastering deliveries, translating client requirements and diverse platform specifications (e.g., streaming service standards) into final products while handling concurrent project schedules (avg. 5 concurrent projects).
- Designed and executed targeted digital marketing campaigns (Facebook Ads) using custom content; analysed campaign performance data and implemented outreach strategies to achieve a 3:1 Return on Ad Spend (ROAS).

Senior Transport Modeller, Arup   *Apr 2018 - Sept 2024*

- Automated critical traffic modelling workflows using Python scripts (using pandas and numpy) for data transfer, model execution, and results processing, eliminating manual errors and significantly reducing project turnaround time.
- Developed the data interface and an early prototype of a web application designed to inform net-zero strategies. This involved designing the connection between complex traffic microsimulation outputs and front-end visualisation tools, enabling stakeholders to effectively analyse policy impacts on carbon reduction.
- Enhanced model output analysis by developing and implementing an SQL database workflow to process results, replacing previous manual, Excel-based methods. This initiative enabled standardised

Assistant Transport Modeller, Systra Ltd.   Oct *2016 - Apr 2018*

- Developed, calibrated and validated microsimulation and junction models for projects under Transport for London's jurisdiction. Ensured models adhered to TfL audit standards, resulting in approved models for scheme impact analysis.
- Managed the full lifecycle of traffic data collection, processing, and analysis, providing validated data inputs critical for model accuracy and presenting key findings to clients.

PROJECTS

Chalkr, iOS climbing tracker ([GitHub](#))

Developed a local-first iOS mobile application designed for climbers to log, track, and analyse workout sessions. Addressed the need for detailed personal performance monitoring without requiring constant connectivity.

- Implemented offline-first data storage and management using SQLite and Drizzle ORM, allowing users to record detailed route data, attempts, and photo documentation.
- Built features for workout data visualisation, analytics, and progress tracking directly within the app.
- **Technologies:** React Native, Expo, SQLite, Drizzle ORM, NativeWind, Firebase (for Auth/potential sync), Jest

Velock, Santander Bike availability tracker ([GitHub](#))

Built a full-stack web application for quickly finding available Santander Cycles or empty docking spaces in London and organise frequently used stations into personalised lists.

- Integrated real-time data retrieval from the official TfL API to provide users with up-to-the-minute bike and space availability.
- Developed user features including management of preferred docking station lists and
- Implemented secure user authentication using JWT.
- **Technologies:** React, Node.js, Express, PostgreSQL, Prisma ORM, Tailwind CSS, JWT Auth, RESTful API

EDUCATION

Master of Science - MSc Transport Planning and Engineering, Newcastle University, Newcastle, UK   *2015 - 2016*
Master of Science - MSc, Civil Engineering, Ecole Spéciale des Travaux Publics, Paris, France   *2013 - 2016*