

# Shawn Goh Zheng Liang

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## EXPERIENCE

### Dyson

Sept 2020 - May 2023

#### Test Development Engineer

- Developed an advanced Optical Character Recognition (OCR) GUI using LabVIEW to automate the accurate reading and analysis of values from Dyson's product UI in conjunction with sensor data, which minimised human error by 20% and streamlined the data analysis process.
- Optimised Dyson's air purifier test setup to prove evenness of sensor reading across all machines within the chamber, and conduct Measurement System Analysis (MSA) to prove repeatability and reproducibility for the test method resulting in a significant 33% increase in test accuracy.
- Improved time to data process and report generating process by 66% by integrating all processes into one by using MATLAB GUI.
- Developed test methods, setups, and GUI for UR robotic arm to automate work tasks based on product requirements, and conduct MSA study by using Python (Tkinter).
- Cross-country communication (with Malaysia, the Philippines, and the UK) was conducted to coordinate on the product testing requirements that would follow the product timeline.

## SOFTWARE PROJECTS

### Synical Sharing Calendar Application: [Frontend Github](#), [Backend Github](#)

- Designed and implemented a full-stack application that enables users to share their calendar schedules with invited participants.
- Incorporated features, such as to import Google Calendar events (Google API), user authentication (Auth0), and comprehensive CRUD functions for managing both calendars and events.
- Utilised NextJS to development the user interface, enabling a seamless and efficient experience
- Employed Node, Express and Sequelize to communicate with frontend and server to ensure a smooth and efficient UX by managing data and handling requests
- Implemented Google's OAuth2.0 to obtain user's refresh token, which facilitates continuous usage of the Google Calendar API.

### Kaching Personal Finance Application: [Application Link](#), [Frontend Github](#), [Backend Github](#)

- Developed a full-stack personal finance online application that allows users to monitor their spending in relation to predetermined budgets.
- Leveraged ReactJS along with React Router to enhance application frontend, provisioning seamless and intuitive navigation
- Designed ERD that helps with the planning of database structure.
- Architected data flows across the front and back-end through React state, HTTP requests and Postgres.
- Employed Node, Express and Sequelize to establish efficient communication between the backend server and database
- Enhanced user authentication by successfully implementing the Auth0 authentication system.

### Gowhere Travel Planner: [Github](#)

- Built a travel planner website application for users to plan their travels together with families and friends.
- Created comprehensive CRUD functions to facilitate collaboration and trip planning for users
- Employed ReactJS to craft dynamic and responsive user interfaces for the frontend
- Leveraged Google Firebase to implement robust authentication, efficient storage and real-time database functionality

## EDUCATION

### Rocket Academy - Software Engineering Bootcamp

Nov 2022 - Aug 2023

- Accomplished one frontend project and two full-stack projects, familiarising with software development lifecycle.

### University of Glasgow (Partner of Singapore Institute of Technology)

Sep 2018 - May 2020

#### Bachelor of Engineering in Mechatronics (First Class Hons)

## SKILLS AND PERSONAL INTERESTS

- Acquired skills in JavaScript, Python, HTML, CSS, Material UI, React.js, Node.js, Express.js, PostgreSQL, Git
- Learnt and familiarised with LabVIEW, MATLAB, and Siemens NX
- Personal interests: Badminton, basketball, watching football and F1, and starting to learn Japanese