

MATTHEW HYEUN

2B Mechatronics Engineering

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TECHNICAL SKILLS

- **Programming Languages:** JavaScript, Python, C++, C, HTML, CSS
- **Frameworks:** React.js, Node.js, Express.js, Koa, MongoDB, GraphQL, Next.js, Jest
- **Software/Tools:** Git, Jira, Agile, AutoCAD, SolidWorks

PROFESSIONAL EXPERIENCE

Software Developer – Tjene Corporation Jan 2020 – Apr 2020
Toronto, ON

- Developed **REST API** to update and delete data on a Shopify database using **Koa** and **GraphQL**; developed user interfaces with Next.js for server-side rendering
- Implemented optimistic UI to improve performance, decreasing loading time by **over 90%**
- Developed frontend features such as user permissions, developer tools, translations, and localization for a data visualization tool using **React.js**, and **il8next**
- Created **unit tests** and integration tests using Jest, Sinon, and enzyme

Automation Developer – Ford Motor Company of Canada May 2019 – Aug 2019
Ottawa, ON

- Developed **Python** scripts using Slash to automate manual test cases, reducing test times by an average of **95%** and eliminating the need for manual testing
- Performed software testing of existing scripts and hardware testing of the telematics control unit

RESEARCH AND PROJECTS

Budgie – Web Application Project Jan 2020 – May 2020
github.com/mhyeun/budgie

- Developed a visual budgeting tool using React.js in a **TypeScript** environment for the user interface
- Implemented user creation, authentication, data pushing, and data retrieval with a REST API created with **Express.js** with a **MongoDB** database
- Created time scaled charts with respective user data using Recharts

Token – Web Application Project Feb 2020
github.com/sjt00/token

- Developed a single-page application (SPA) using Express.js, React.js, and Google Maps API to help recovering alcoholics by notifying selected contacts when a relapse is at risk
- Implemented tracking of users' locations with Radar.io; created an API to automatically send SMS messages to specified contacts using **twilio**

Undergraduate Research Assistant – University of Waterloo Sep 2019 – Dec 2019
Waterloo, ON

- Updated legacy backend code using **Flask** for a search engine product developed for caretakers of patients with Alzheimer's disease
- Recipient of the President's Research Scholarship (\$1500)

Research Assistant – Brock University Sep 2017 – Dec 2017
St. Catharines, ON

- Conducted a study on celestial mechanics and developed code with **matplotlib** to create plot visualizations
- Recipient of the Physics & Astronomy Award, and the Engineering Technicians' Award

EDUCATION

University of Waterloo • Waterloo, ON Sep 2018 – Apr 2023
Candidate for BAsC in Mechatronics Engineering – GPA: 3.7/4.0