

## skills

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**Languages:** JavaScript (ES7), TypeScript, GLSL, C#, QML, HTML/CSS

**Web:** Node.js, React, Redux, Apollo GraphQL, Next.js, Vue.js, D3.js, styled-components, Webpack

**Graphics / Engines:** WebGL, Shaders, Three.js, Blender3D, Unity3D

**Other:** GraphQL, Postgres, React Native, Git

## experiences

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### Frontend Developer (Interactive Web) | MediaMonks

MAY 2019 - PRESENT

- Delivered an interactive build-to-order tool for Hyundai's G80 model using **Vue.js** and **GSAP animations**
- Integrated with **Google Vision** and the browser's native media streamer to create an **AR simulation** for user specified item detection

### Frontend Engineer (Platform) | Yolk AI

JULY 2018 - JAN 2019

- Implemented features for service desk automation tools using a **React / Apollo Client** frontend and communicated with a **GraphQL** backend. Contributed to **Jest** component testing
- Developed internal theming library based on **emotion.js** and created reusable form components
- Built a sankey diagram using **D3.js** that dynamically takes in and visualizes application usage data

### Software Developer (CANVAS) | Mosaic Manufacturing

FEB 2018 - JULY 2018

- Architected and prototyped the frontend for CANVAS, a **React/Redux** app for easing the process of preparing and slicing models for multi-material 3D printing
- Handled model uploads and interaction via **Three.js**. Features include drag & drop coloring of models using ray tracing, model transformations and normalizing grouped model uploads
- Implemented authentication and model slicing calls via **Node.js** backend and Amazon's **DynamoDB**

### Software Engineer Intern (Manufacturing Automation) | North (formerly Thalmic Labs)

MAY 2017 - DEC 2017

- Increased scalability of production tools by migrating Qt and legacy web apps to modern frameworks
- Developed **React** based tools using **WebSockets** and the browser's **Gamepad API** to allow users to easily communicate with production machinery via precision controllers

## projects

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### Kaeswap [kaeswap.com](https://kaeswap.com)

DEC 2018 - PRESENT

- A platform for K-Pop enthusiasts to trade and resell merchandise and event tickets. Received **thousands** of pageviews and **hundreds** of daily active users during the KCON LA 2019 event
- Developed modular form components using **React Hooks** and handled requests with **Apollo Client**

### WebGL Sketchbook [bit.ly/2BcthOE](https://bit.ly/2BcthOE)

JAN 2018 - PRESENT

- A sandbox and journal for documenting my WebGL journey. Contains a collection of **shaders** and **Three.js** experiments exploring noise functions, postprocessing techniques and more
- Routing and mounting between sketches handled via **React + React Router**

### Pokedex Web App + API [bit.ly/2MX18CA](https://bit.ly/2MX18CA)

OCT 2017 - JAN 2018

- Architected a **Postgres** database to store Pokemon data scraped using **Node.js** for efficient read access
- Implemented frontend using **React + Redux** with a **Node.js (Express)** backend to handle database queries

### D3 Geographic Esports Visualization [bit.ly/2xoWW9j](https://bit.ly/2xoWW9j)

JAN 2017

- Rendered aggregated esports earnings data into an interactive globe choropleth (heatmap) using **D3.js**

## education

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University of Waterloo, Bachelor of Accounting and Finance

CLASS OF 2018