

## experiences

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### Frontend Developer (Interactive Web Team) | MediaMonks

MAY 2019 - PRESENT

- Prototyped a 3D asset viewer tool for HP's consumer PC products using React and Three.js for a sales pitch that secured another 3 projects with HP, leading to an additional **\$8M + in revenue**.
- Developed the WebGL of the **FWA award winning** interactive microsite showcasing HP Indigo's LEPx printer. Optimized site **performance by 30%** by reducing draw calls per render and efficiently handling user events.
- Delivered an interactive car configuration sales tool using Vue for the Hyundai Genesis series. Developed a flexible system for reading CMS data, allowing the client to reuse the app for multiple car models.

Notable projects: [HP Indigo LEPx](#), [Twitter Transparency](#), [Hyundai Genesis Korea](#)

### Frontend Engineer (Platform) | Yolk AI

JULY 2018 - APR 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 styled-components and created reusable form components to standardize branding within the code base, easing the process of creating components for other developers.

### Software Developer (Team CANVAS) | Mosaic Manufacturing

JAN 2018 - JULY 2018

- Architected and prototyped the frontend for CANVAS, a **React / Redux** app that consolidates tools for creating, slicing and coloring models for multi-material 3D printing into a single web platform.
- Handled 3D model uploads and interaction via **Three.js**. Some features include model transformations and drag & drop to color and assign materials to models, allowing users with no 3D printing or modelling experience to prepare models for multi-material printing.

### Software Engineer Intern (Manufacturing Automation) | North (Acquired by Google)

MAY 2017 - DEC 2017

- Increased scalability of production tools by migrating Qt desktop apps to modern web frameworks, ensuring production workers could always easily access the most up to date tool versions.
- Utilized WebSockets and the browser's Gamepad API to allow users to easily communicate with production machinery via precision controllers, **increasing production efficiency by 80%**.

## projects

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### Kaeswap [butler.staging.kaeswap.com](https://butler.staging.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 Apollo Client** to create a streamlined, indexable, way for users to format their listing data so that it is easily searchable by potential buyers.

### WebGL Pokdex Apollo Client + Server [misspia.me/pokdex-webgl](https://misspia.me/pokdex-webgl)

JAN 2019 - MAY 2019

- Developed an interactive WebGL experience with **Three.js and React hooks** to provide a novel, yet performant, way to interact with pokemon data.
- Architected an **Apollo Server** for efficient read access of Pokemon data to result in optimal page load time.

### WebGL Sketchbook [misspia.me/sketchbook](https://misspia.me/sketchbook)

JAN 2018 - PRESENT

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

## skills

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Languages: JavaScript (ES7), TypeScript, GLSL, HTML/CSS

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

Other tools: Shaders, GraphQL, Postgres, Git

## education

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University of Waterloo, Bachelor of Accounting and Financial Management (BAFM)

CLASS OF 2018