

Frontend Engineer (Brokerage Operations / Lending) | Habito

NOV 2020 - PRESENT

- Built a hub of aggregated customer data for our internal brokers, increasing the speed of and reducing the amount of errors made when processing a mortgage application **by 90%**
- Aggregated multiple services into single **Node.js** middleman servers to reduce the complexity in our frontends
- Led fortnightly discussions for the frontend group and contributed to knowledge sharing talks across the engineering team. Contributed to the creation of responsive and web accessible components for design system

Frontend Developer (Interactive Web Team) | MediaMonks

MAY 2019 - NOV 2020

- 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 frame and efficiently handling user events.

Notable projects: [HP Indigo LEPx](#), [S⁴Capital Annual Report](#), [Twitter Transparency](#), [Hyundai Genesis Korea](#)

Frontend Engineer (Platform) | Yolk AI (Acquired by Astreya Partners Inc)

JULY 2018 - APR 2019

- Created a suite of service desk automation tools using a **Typescript / React / Apollo Client** frontend and communicated with a GraphQL based server. 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 and optimize the development process of other engineers.

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.
- Built ontop of **Three.js**, features include 3D model uploading, transformations and drag & drop color/material assignment, allowing users with no 3D printing experience to prepare models for multi-material printing.

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

MAY 2017 - DEC 2017

- 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

Wingbae

MAR 2021 - PRESENT

Led frontend development of TypeScript and Apollo Client based social dating platform focused on creating time and location based rooms where users can chat and match with one another

Kaeswap

DEC 2018 - DEC 2019

A Next.js and Apollo Client based platform for K-Pop fans to trade and resell their albums/merch/event tickets; received **thousands of pageviews** and **hundreds of concurrent active users** during the KCON LA 2019 event

WebGL Pokdex Apollo Client + Server misspia.me/pokedex-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 served from a custom **Apollo server**

WebGL Sketchbook 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

skills

Languages: JavaScript (ES12), 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

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

CLASS OF 2018