

experiences

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. The sales pitch 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 loading and reading CMS data, increasing the reusability of app.

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
- Built a sankey diagram using D3.js that dynamically took in and visualized application usage data

Software Developer (Team CANVAS) | Mosaic Manufacturing

JAN 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 3D 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 (Acquired by Google)

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

Kaeswap 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 handled requests with Apollo Client
- Designed a clean and friendly UI where users can signup, browse merchandise and view seller contact info

WebGL Pokdex Apollo Client + Server misspia.me/pokedex-webgl

JAN 2019 - MAY 2019

- Architected an **Apollo Server** for efficient read access of scraped Pokemon data
- Developed an interactive WebGL experience with Three.js and custom shaders. Managed state and UI elements using **React hooks and its Context API**.

WebGL Sketchbook misspia.me/sketchbook

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 hooks + React Router

skills

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

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

Graphics & other tools: WebGL, Shaders, Three.js, GraphQL, Postgres, Git

education

University of Waterloo, Bachelor of Accounting and Finance

CLASS OF 2018