

Education

College University

B.S. Computer Science, GPA: 3.912

Sep 2017 – May 2022

City, STATE

Skills

Programming Languages: TypeScript, JavaScript, Python, Java, SQL

Tools & Frameworks: Git, React, Redux, Express.js, Jest, HTML/CSS, PostgreSQL

Work Experience

Company 1

Jan 2021 – Aug 2021

Software Engineer Co-op

Remote

- Maintained full-stack internal web tools using PHP, TypeScript, Java, and React
- Led effort to migrate dynamic web marketing material to a content management system, successfully eliminating engineering time spent manually updating 14-18 instances of material per month
- Constructed Zendesk and Jira Service Desk API integrations to streamline customer support engineer workflows that process 100s of customer tickets per day
- Improved developer experience for a Node.js permissions service by creating useful abstractions for rule composition, simplifying testing patterns in Jest, and contributing to underlying open source rules engine

University Software Consultancy

Sep 2020 – May 2021

Software Developer

Remote

- Developed features for a university course planning web application using Ruby on Rails, TypeScript, and React
- Modeled course schedule data in TypeScript, wrote logic for validating course requirements, and implemented React components to display interactive course plans to users
- Wrote a Node.js script to automatically parse university course documentation into JSON for internal usage
- Provided technical mentoring to teammates on tasks through routine pair-programming

Company 2

Jan 2020 – Aug 2020

Software Engineer Co-op

City, STATE

- Demonstrated technical growth starting with no Scala, TypeScript, or web development experience to becoming an active contributor to a Scala with Cats backend and a TypeScript with React/Redux frontend
- Worked with designers to build front-end user flows and interactions with React, TypeScript, HTML, and CSS
- Surfaced API endpoints in Scala used to persist millions of rows of user data
- Developed CSV bulk upload features used by internal analysts and external users 12 times per day on average

Projects

Random Audio Player *TypeScript, Node.js, Fastify, React, TailwindCSS, NGINX, Docker*

2022

github.com/firstlast/project1

- Created a full-stack web application for demoing and downloading random sounds fetched from the Freesound API
- Deployed application frontend, backend, and NGINX reverse proxy to Railway using Docker

TheNeedleDrop Review Dataset *TypeScript, Node.js, Fastify, YouTube Data API, PubSubHubBub*

2022

github.com/firstlast/project2

- Implemented a Node.js script to fetch and parse metadata from the YouTube Data API in order to generate a CSV dataset of a popular music critic's video music reviews
- Automated real-time updates to a hosted dataset using a PubSubHubBub server deployed to DigitalOcean via GitHub

Compiler for Python-like Language *OCaml, C, x86 Assembly*

2022

Closed Source

- Wrote a compiler backend in OCaml and a C runtime for a Python-like expression-oriented language
- Supported dynamically-typed values including numbers, Booleans, tuples, strings, and first-class functions
- Managed program memory with mark-and-sweep garbage collection and register allocation
- Wrote over 600 unit tests and end-to-end tests to ensure correctness of compilation using OUnit