

# First Last

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portfolio.com  
linkedin.com/in/firstlast  
github.com/firstlast

## Work Experience

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**Company 1** Software Engineer Co-op — Remote Jan 2021 – Aug 2021

- 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 and internal web tools in PHP, TypeScript, and React 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 library

**University Software Consultancy** Software Developer — Remote Sep 2020 – May 2021

- 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** Software Engineer Co-op — City, STATE Jan 2020 – Aug 2020

- 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
- Built front-end user flows and interactions according to designer specifications with TypeScript, React, HTML, and CSS
- Surfaced API endpoints in Scala to persist millions of rows of user data in a PostgreSQL database
- Reduced manual effort for internal analysts and external users to modify advertising campaign targets by implementing a CSV bulk upload API and batch modification job in Scala, used 12 times per day on average

## Projects

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**Random Audio Player** [github.com/firstlast/project1](https://github.com/firstlast/project1) 2022 – Present

- 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

**Compiler for Python-like Language** Closed Source 2022 – Present

- 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

## Education

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**College University** B.S. Computer Science, 3.9/4.0 GPA — City, STATE Sep 2017 – May 2022

## Skills

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

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