

# Andrew Leung

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## EDUCATION

### B.S. Computer Science

Northeastern University, Khoury College of Computer Sciences

GPA: 3.912/4.0

Sep 2017 – May 2022

Boston, MA

## SKILLS

**Programming Languages:** TypeScript, JavaScript, Java, Python, Racket, Scala, OCaml

**Frameworks:** React, React Query, Redux, Express.js, Fastify, Jest

**Databases:** PostgreSQL, MongoDB

## WORK EXPERIENCE

### Poloniex

Jan 2021 – Aug 2021

*Software Engineer Co-op*

*Remote*

- Built and maintained internal tools written in PHP, TypeScript, Java, and React used to manage accounts, funds, and markets across crypto exchange
- Orchestrated cross-team (engineering, security, marketing, product) effort to migrate web marketing material to a content management system, eliminating engineering time spent updating 14-18 instances of material per month
- Implemented key features of a Node.js permissions authentication service, including JWT/JWK-based authentication, open source improvements to underlying rules engine, and streamlining of testing with Jest
- Created API actions and automations integrated with internal and external services, enabling support engineers to process hundreds of customer tickets per day

### Sandbox at Northeastern University

Sep 2020 – May 2021

*Developer for GraduateNU*

*Remote*

- Built new features for course planning application with TypeScript, React, Redux, and Ruby on Rails
- Adapted to changing graduation requirements by iterating on existing models, revising logic for validating course requirements, and updating UI to reflect changes
- Wrote a script to parse university course documentation into a JSON schema using Node.js
- Provided technical mentoring to teammates through routine pair-programming

### Teikametrics

Jan 2020 – Aug 2020

*Software Engineer Co-op*

*Boston, MA*

- Demonstrated technical growth starting with no Scala, TypeScript, or web development experience to becoming an active contributor to a functional Scala with Cats backend and a TypeScript with React/Redux frontend
- Surfaced Scala APIs with Slick, one of which has been used to persist nearly 4 million unique database entries
- Developed and augmented CSV bulk upload features used by internal analysts and external users 12 times per day
- Built features for the Campaign Creation Wizard, including a new user flow and an edit mode for advertising campaigns

## PROJECTS

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

2022

*Closed Source*

- Wrote a compiler backend in OCaml and a runtime in C for a Python-like expression-oriented language
- Fully supported strong dynamically typed values, including number and Boolean primitives as well as heap-based tuples, strings, and mutually recursive first-class functions
- Managed program memory with mark-and-sweep garbage collection and register allocation

### Raudi TypeScript, Node.js, Fastify, React, React Query, TailwindCSS

2022

*github.com/andrewjleung/raudi*

- Created a full-stack web application to quickly demo and download random sounds fetched from the Freesound API, featuring cookie-based session management and a custom HTML5 audio player

### TheNeedleDrop Review Dataset TypeScript, Node.js, YouTube Data API, PubSubHubbub

2022

*github.com/andrewjleung/fantano-reviews*

- Wrote a script for generating a CSV dataset with all of popular music critic TheNeedleDrop's video music reviews
- Automated live updates to a hosted dataset by subscribing a callback server to all future review video uploads