

# Andrew Leung

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## Work Experience

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**PayPal** Software Engineer 1 — Remote

Jun 2023 – Present

- Maintained Braintree's internal Ruby on Rails application for assessing fees on acquired transactions, creating payouts to merchants, and generating statements and reports
- Increased revenue by \$160,000 a day by correcting fee calculations to round fractional cent amounts instead of truncating them
- Prevented over \$150,000 in misallocated funds by identifying and resolving an edge case in the timing of transactions ingested via Kafka, transfers between internal bank accounts, and daily Qless jobs responsible for payouts to merchants
- Led development and coordinated live testing of crucial funds disbursement flows used to pause payouts and hold funds for high-risk merchants resulting in a 100% success rate across live testing cases

**Poloniex** Software Engineer Co-op — Remote

Jan 2021 – Aug 2021

- Reduced engineering effort spent updating web marketing material by 100% by migrating content to DatoCMS content management system and using GraphQL to retrieve and serve content dynamically from a Node.js backend
- Broadened the expressiveness of JSON-based rule definitions used to govern user permissions in internal support tools by contributing support for logical negation to open source rules engine used by a Node.js permission verification service
- Constructed Zendesk and Jira Service Desk API integrations and internal web tools in PHP, TypeScript, and React to streamline customer support engineer workflows

**Teikametrics** Software Engineer Co-op — Boston, MA

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
- Reduced effort for users modifying ad campaign targets by implementing a React UI and Scala API for bulk CSV uploads

## Projects

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**Bookmark Manager** [github.com/andrewjleung/linkr](https://github.com/andrewjleung/linkr)

2023 – Present

- Created a self-hostable bookmark URL manager using TypeScript, Next.js, and shadcn/ui components
- Built an API for migrating bookmarks from web browsers or other bookmark managers
- Persisted data in a PostgreSQL database hosted by Supabase and queried via Drizzle ORM

**Compiler for Python-like Language** Closed Source

2022

- 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

## Skills

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

**Tools & Frameworks:** Git, React, Redux, Next.js, Express.js, Ruby on Rails, HTML/CSS, Tailwind, PostgreSQL, Vim

## Education

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**Northeastern University** B.S. Computer Science, 3.9/4.0 GPA — Boston, MA

Sep 2017 – May 2022