

# 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 transaction fees, funding merchants, and generating statements and reports
- Led development and orchestrated live testing across engineering, product, and account teams for crucial funds disbursement flows used to pause payouts and hold funds for high-risk merchants resulting in a 100% success rate in live production testing
- Increased revenue by \$160,000 a day by correcting percentage-based fee calculations indiscriminantly truncating the decimal of fractional cent amounts to instead round to the nearest cent
- Prevented over \$150,000 in misallocated funds by identifying and fixing an edge case in the timing of customer transactions ingested via Kafka, movement of funds between internal bank accounts, and regularly-scheduled payouts to merchants

**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 of actions 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