

Michael Zappa

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Available July 2023.

EDUCATION

Khoury College of Computer Sciences, Northeastern University

Boston, MA

Bachelor of Science in Computer Science, Minor in Linguistics

Aug. 2018 – May 2023

- GPA: 3.9/4.0, Dean's List all semesters, Honors Program.
- Relevant Coursework: Software Engineering, Compilers, Computer Systems, Networks and Distributed Systems, Systems Security, Programming Languages, Object Oriented Design, Algorithms and Data Structures, Foundations of Cybersecurity.
- Attended Dialogue of Civilization in the North of Ireland focused on the role of storytelling in community activism, conflict resolution, and conflicted identities.

EXPERIENCE

SDE Co-Op | *Java, Amazon Web Services*

July 2022 – December 2022

Amazon Global Robotics

Westborough, MA

- Participated in organization-wide Innovation project concerning robotic movement.
- Debugged production service issues and supported on-call teammates.
- Performed critical load-balancer partition and migration for team's core service.
- Took ownership of service on deprecation path; addressed risks, communicated with customers, began deletion.
- Investigated and justified team-level decisions for service architecture.
- Created, modified, and deleted alarms across multiple services and regions.
- Engaged with the wider Amazon community, particularly in the open-source software arena.

Software Developer Co-Op | *Ruby on Rails, Oracle SQL*

July 2021 – January 2022

Smartleaf, Inc

Boston, MA

- Specified, implemented, and tested API endpoints requested by clients in the wealth management industry.
- Patched sequence bug in Ruby database adapter when importing large batches of rows.
- Conducted security audit and corresponding upgrades of Ruby and JavaScript dependencies.
- Worked with internal wealth management team to fix third-party data transfer in production.
- Created automated performance and A/B tests of application across different environments.
- Coordinated release pipeline between developer and business teams.
- Fulfilled client deliverables ahead of schedule.
- Interviewed and onboarded new team members at multiple levels of seniority.

PROJECTS

Klox Language | *Kotlin, Gradle*

August 2022 - September 2022

- Implemented an interpreter^[1] for the Lox programming language in Kotlin.
- Extended language to include native lists and standard library.
- Attempted additional compilation to Scheme, challenged by the difference in semantics between the two languages.

Web Development | *TypeScript, Elixir, Node.js, React, Phoenix, SQL*

April 2020 – August 2020

- Led back-end and mobile development for an application^[1] to facilitate a 24-hour scavenger hunt.
- Created multiple websites^{[1][2][3][4]} to play "Fish" card game with friends remotely during COVID-19 pandemic.
- Implemented back-ends in Typescript and Elixir to serve REST APIs.
- Developed front-ends using React/Phoenix/React Native.

TECHNICAL SKILLS

Languages: Java, TypeScript, OCaml, Ruby, C/C++, SQL

OS: Linux, MacOS

INTERESTS

- Computing: Reproducible packages and systems, programming languages and compilers, formal verification.
- Other: Linguistics and foreign languages, high fantasy novels, geography, rugby, motorsport.