Michael Zappa

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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, Logic and Computation.
- Attended, and assisted, study abroad in the North of Ireland focused on the role of storytelling in community activism, conflict resolution, and conflicted identities.

EXPERIENCE

Associate Professional Staff 1 — Sep. 2023 – Present
Johns Hokpins Applied Physics Laboratory — *Laurel, MD*

- Member of the Cyber Concepts and Exploration (QCE) group.

SDE Co-Op — July 2022 – Dec. 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.

Software Developer Co-Op — July 2021 – Jan. 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.
- 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 — Aug. 2022 – Sept. 2022

- Implemented an interpreter [1] for the Lox programming language in Kotlin.
- Extended language to include native lists and a standard library.
- Attempted additional compilation to Scheme, made challenging by the difference in assignment semantics.
- Package JVM and native versions using Nix Package Manager.

TECHNICAL SKILLS

Programming Languages: Java, Python, OCaml, Ruby, Lisp, C, SQL
Tools: Git, GitLab CI, Docker, Nix

INTERESTS

Computing: Reproducible packages and systems, programming languages and compilers, formal verification.
Other: Linguistics and natural languages, fantasy/sci-fi books, geography, rugby.