

Lucas Sta Maria

lucas.stamaria@gmail.com | Website: <https://priime.dev>

EDUCATION

Northeastern University
Bachelor of Science in Computer Science and Mathematics

Boston, MA
May 2025

EXPERIENCE

Amazon Web Services – Elastic Block Store
Software Development Engineer
• Developing the data plane for **AWS EBS** Metal Volumes.

September 2026 – Present
Boston, MA

Amazon – Last Mile Delivery
Software Development Engineer
• Architected and implemented iOS app crash monitoring and alarming with **SQS**, **DynamoDB**, **Lambda** and **TypeScript**.
• Developed CarPlay support in **Swift**, launching in the United States while coordinating with product and mentoring an intern, and integrating existing navigation.
• Led development of license plate driver check-in in **React Native**, coordinating with product and design teams.
• Improved internal build system in **Swift**, reducing end-to-end build times by **25% (2 hours)** and performing KTLO upgrades.
• Created developer tools to support **Kotlin Multiplatform** and **Swift** interop, integrated into the internal build system.
• Managed CI/CD release pipelines for app release cycles, and diagnosed and resolved outage issues during on-call rotations.

September 2025 – September 2026
Austin, TX

Amazon
Software Development Engineer Intern
• Implemented a dynamic newsfeed widget for the new home screen on the **Amazon Flex** app with **SwiftUI**.
• Improved the **Swift** runtime of **Amazon States Language** (ASL) that powers significant architecture of the app.

May 2024 – August 2024
Seattle, WA

TEACHING

Northeastern University – Logic & Computation
Teaching Assistant
• Added language functionality to **Logical Student Language** in **Racket**, enabling students to write property-based tests.
• Taught logic, dependent typing, polymorphism, concurrency, and theorem proving through specification and verification.

January 2025 – May 2025
Boston, MA

Northeastern University – CS I
Teaching Assistant – Autograding Team Lead
• Lead the design and development of an assignment autograding system and domain-specific autograder specification language in **Racket** serving **2500+** submissions per week, integrated with **AWS**.
• Sandboxed submissions in **Docker** and added functionality for evaluating the robustness of student functions and tests.

August 2024 – December 2024
Boston, MA

Northeastern University – Programming Languages
Head Teaching Assistant
• Organized course logistics and created new CLI tool for students in **Racket** to manage and upload assignments.
• Taught parsing, recursion, fixed-point combinators, lambda calculus, mutation, lazy evaluation, type systems, and macros.

January 2023 – May 2024
Boston, MA

PROJECTS

x64 Compiler, *Functional Programming Language*
• Implemented a functional programming language compiler in **OCaml** targeting **x64 assembly** with a **C runtime**.
• Added bidirectional type-checking, first-class functions, semi-space garbage collection, and various optimizations.

January 2023 – April 2023

UFDS Training, *Competitive Programming Training Platform*
• Scaled the platform with **Firebase** to help **1000+ active users** achieve top placements in competitions (**IOI**, **APIO**, **INOI**).
• Developed platform with **React.js** and **Rust**, containerizing jobs with **IOI Isolate** for user-submitted code evaluation.

June 2021 – June 2024

SKILLS

Programming Languages: Java, Racket, OCaml, Python, Swift, Rust, Kotlin, JavaScript, C++
Tools & Technologies: Linux (NixOS, Arch), Emacs, Git, Bash, AWS, PostgreSQL, Redis, SQLite, Docker