LUKE JIANU

+1(425) 229-1106 ◇ jianuluke@gmail.com ◇ github/lukejianu ◇ linkedin/lukejianu

EDUCATION

Northeastern University Sept. 2021 - May 2025
B.S. in Computer Science, 4.00/4.00 GPA, Dean's Merit Scholarship *Boston, MA*

Relevant Coursework Software Development, Compiler Design, Programming Languages
Computer Systems, Systems Security, Network Fundamentals

Teaching Assistant Logic & Computation, Daniel Patterson (Spring 2024)
Fundamentals of CS I, Daniel Patterson (Fall 2024)
Software Development, Matthias Felleisen (Fall 2024)

EXPERIENCE

Databricks May 2024 - Aug. 2024
Software Engineer Intern *Bellevue, WA*

· Extending a testing tool in Scala to evaluate the performance of a distributed OLTP database under production traffic loads.

Belvedere Trading June 2023 - Aug. 2023
Software Engineer Intern *Chicago, IL*

· Built a low-latency, service-agnostic proxy in C++ to aggregate redundant TCP connections between datacenters, resulting in a **70% reduction** in bandwidth usage for proxied services.
· Upgraded the C# service discovery algorithm to match clients with services in the same datacenter.

Amazon Robotics Jan. 2023 - June 2023
Software Development Engineer Co-op *North Reading, MA*

· Empowered AR teams to rapidly grow, monitor and manage their device fleets at scale by inventing and simplifying features in my team's Comprehensive Device Management solution.
· Architected a new, fault-tolerant workflow in AWS Lambda with Kotlin for modifying robot location data, performing **20 times faster** than the old workflow.
· Refactored a large, imperative-style vanilla React codebase with functional-style TypeScript & React Query, resulting in a **95% reduction** in API calls and **50% faster** loading times.

S3Global May 2022 - Aug. 2022
Software Development Intern *Redmond, WA*

· Designed C++ tooling for benchmarking, testing, and managing **12 high-speed cameras** used to capture computer vision training data from the top youth football academies in Spain.

PROJECTS

Rust Operating System Dec. 2023 - Present

· Designing and developing a toy OS in Rust, with a focus on systematic design.

x64 Compiler Jan. 2024 - Apr. 2024

· Wrote a compiler for a functional language in OCaml, targeting x64 assembly with a C runtime.
· Supported modern features such as first-class functions, continuations (call/cc), and garbage collection.

TECHNICAL SKILLS

Programming Languages Java, C/C++, Python, JavaScript, SQL
Tools & Technologies Vim, Linux, Git, AWS, Docker, Kubernetes, React