

LUKE JIANU

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EDUCATION

Northeastern University

Sept. 2021 - May 2025

B.S. in Computer Science, 4.00/4.00 GPA

Boston, MA

Relevant

Object-Oriented Design, Algorithms & Data, Logic & Computation

Coursework

Database Design, Foundations of Data Science, Foundations of Cybersecurity

EXPERIENCE

Belvedere Trading

Jun. 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.
- Optimized performance through the use of asynchronous message passing, implemented with the visitor design pattern (`std::variant`), enabling the processing of **5.4Tb of data** daily.
- Modified the service discovery algorithm in C# to match clients with services in the same datacenter.

Amazon Robotics

Jan. 2023 - Jun. 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 move device system in AWS Lambda with Kotlin, enabling teams to provision robotic workcells in test sites, saving **1000+ hours** of software installs yearly for IT at production sites.
- Designed a device timeline feature in AWS CDK with TypeScript, providing insights for **30k+ devices**.
- Refactored a large, imperative-style vanilla React codebase with functional-style TypeScript & React Query, resulting in a **75% reduction** in API calls and **50% faster** loading times.

S3Global

May 2022 - Aug. 2022

Software Development Intern

Redmond, WA

- Created a .NET WPF application to interface with **12 high-speed cameras**, including functionality to toggle recording, change scale and video RGB, and reboot bugged cameras.
- Implemented streaming using C++ interop with the camera's SDK to dump frames into shared buffers.

PROJECTS

NUCarpool

Sept. 2022 - Present

Software Developer at Sandbox

Boston, MA

- Developing a web app using the T3 stack for Northeastern students to find co-op carpool groups.

Trading Bot

Jul. 2022

Participant at Jane Street's Electronic Trading Challenge

Seattle, WA

- Placed **10th** by quickly programming penny-pinching and ADR/ETF arbitrage strategies in Python.

TECHNICAL SKILLS

Computer Languages

C++, Java, Python, JavaScript, TypeScript, SQL

Tools & Technologies

Vim, Git, AWS, Docker, React, Prisma