ANDREY PITERKIN

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EDUCATION

Northeastern University Sep 2021 - May 2025
B.S. in Computer Science, Overall GPA: 3.94 / 4.00 *Boston, MA*
Coursework Compiler Design, Object-Oriented Design, Networks & Distributed Systems, Algorithms & Data, Graduate Advanced Algorithms, Operating Systems, Programming Languages, Computer Graphics, Logic & Computation

EXPERIENCE

Datadog Sep 2024 - Dec 2024
Incoming Software Engineer Intern *New York, NY*

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

· Designing **extensible test framework** for billing pipeline, focused on stressing resource lock-out latency for limited accounts.

MathWorks Jan 2024 - Apr 2024
Software Engineer Intern *Natick, MA*

· Enhanced **C++** fixed-point arithmetic operations in MATLAB to build full precision dot product and matrix multiplication **type APIs** targeting **fixed-point neural nets**.
· Optimized SimuLink **C codegen** by selecting **50% smaller types** for neural net matrix operations.
· Built foundation for **range math engine** in MATLAB, increasing arithmetic operation **precision by 10%.**

Amazon May 2023 - Aug 2023
Software Engineer Intern *Seattle, WA*

· Designed new service to generate **risk-based** disbursement policies for **9.7+ million** Amazon.com sellers, saving **$600k+** dollars from bad actors while **reducing** seller friction.
· Implemented path-critical functionality for reserves, auditing, and disbursement service re-architecure effort with **AWS**, **TypeScript**, and **Java** to provide low-latency seller statistics.
· Created **scalable** architecture to process **1.1 million+** seller risk scores **daily** with **Lambda** and **Kinesis**.

S3 Global May 2022 - Aug 2022
Software Engineer Intern *Redmond, WA*

· Developed and documented an abstraction layer in **C++** for a high-speed camera SDK.
· Implemented stream interface between abstraction layer and **C#/.NET** application via shared frame buffers.
· Designed a comprehensive network-device monitoring system and error detection pipeline for the entire company device fleet, utilizing **Python** and **SQL Server**.

AWARDS/PROJECTS

x86_64 Compiler Jul 2022

· Designed a static, un-typed language compiler in **OCaml** targeting **x86_64 assembly** with a **C runtime.**
· Supported features such as **first-class functions**, **continuations**, and stop-the-world **garbage collection.**

Trading Algorithm Jul 2022
Contestant at Jane Street's Electronic Trading Challenge *Seattle, WA*

· Achieved **10th** out of 32 teams by implementing **Python** strategies for bond penny-pinching and ADR/ETF arbitrage.

SigLo Feb 2022
Hackbeanpot 2022 Winner: Most Technically Challenging *Boston, MA*

· Built a hand-gesture based interface for scrolling and navigating with a computer through camera, targeted at improving navigation accessibility with **MediaPipe** and **Pynput**, published on **PyPi**.

TECHNICAL SKILLS

Programming Languages Java, Python, C/C++, JavaScript, MySQL, Postgres
Frameworks & Technologies OpenGL, React, AWS (Lambda, Kinesis, EC2), Node, Git, TensorFlow