FLETCHER GORNICK

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fletcher-gornick fmgornick

EXPERIENCE

Software Engineer, Kafka Engineering

Target Cloud & Compute

July 2023 – Present Minneapolis, MN

- Orchestrated and maintained 400+ Kafka clusters for Target's .com and PCI data pipelines, implementing MirrorMaker, observability (Grafana, OpenTelemetry), and major storage migrations (NFS → iSCSI).
- Built Spring/Micronaut microservices, CLI tools, and automation scripts for topic management, cluster configuration, and troubleshooting to improve reliability and developer efficiency.

Kafka | Linux | Spring | Micronaut | NFS | iSCSI | OTel | Grafana | MirrorMaker | Git | Kubernetes | Go | Python

Software Engineer Intern, API Platform

Target Technology

Jun 2022 – Aug 2022 Minneapolis, MN

- Built a Go-based tool to dynamically generate Envoy reverse proxy configurations, enabling seamless traffic routing for backend clusters.
- Collaborated within a 10-member Agile team, coordinating across disciplines to deliver reliable API infrastructure solutions.

Go | Docker | Haproxy | Envoy | Ruby | Hugo | SQL | Node.js | JavaScript | Git | Python

Undergraduate Teaching Assistant

University of Minnesota, Twin Cities

Jan 2022 – May 2023 Minneapolis, MN

- Introduced students to C++ and foundational concepts of OOP.
- Taught design patterns to improve development efficiency and SOLID principles to ensure long-term maintainability.
- Guided students in structuring projects using Unified Modeling Language (UML), emphasizing thoughtful program design and analysis.

C++ | Docker | UML | Design Patterns | JavaScript | HTML

EDUCATION

University of Minnesota, Twin Cities

B.S. in Computer Science & Mathematics

2019 – 2023 Minneapolis, MN

Cumulative GPA: 3.96/4.0

M.S. in Computer Science

2023 – Present Minneapolis, MN

Cumulative GPA: 3.92/4.0

Relevant Coursework: Operating Systems, Machine Architecture, Computer Graphics, Advanced Algorithms, Robotics, Graph Theory, Matrix Theory, Linear Codes

PROJECTS

Binary Space Partition Demo

BSP tree visual simulation written in C

April 2025 fmgornick/bsp

- Visualizes the BSP tree construction algorithm used in CPU-rendered games like DOOM and Quake II.
- It's also compiled to WebAssembly. Try it out at https://fletcher.gornick.dev/projects/bsp.

C | OpenGL | Raylib | Emscripten

Search & Rescue Simulation

Drone physics simulation written in C++

Apr 2021 fmgornick/drone-sim

- Built a C++ simulation modeling drone movement over a 3D map of Minneapolis using object-oriented design and software design patterns.
- Implemented Canny edge detection using a sequence of convolution filters to provide computer vision capabilities for the drone.

C++ | Docker | JavaScript | Doxygen

CPU Raytracer

CPU-based 3D renderer

March 2024 fmgornick/cpu-ray-tracer

- Implemented a CPU ray tracer that loads .obj models and outputs ray-traced PNG images with realistic lighting.

C | LLDB | OBJ | stb_image

SKILLS

Skills I've worked with directly. Ordered by approximate proficiency/relevance.

Programming/Scripting Languages

C/C++ | Go | Rust | Java | Python | Bash | Assembly | GLSL | TypeScript | Haskell | HTML+CSS | LaTeX | OCaml

Software, Frameworks, & Libraries

Kafka | OpenGL | GLFW | Micronaut | Spring | Gradle | gRPC | MirrorMaker

Development Tools & Environment

Linux | Git | GDB | Docker | QEMU | FFmpeg | Kubernetes | GitHub Actions | AGILE | Vim | Emacs | Tmux