

# Jonas Groening

[jonasg@umich.edu](mailto:jonasg@umich.edu) | [jonasiw.nl](mailto:jonasiw.nl) | [linkedin.com/in/jonasgroening](https://www.linkedin.com/in/jonasgroening) | [github.com/jonasiwnl](https://github.com/jonasiwnl)

## EDUCATION

### University of Michigan, Ann Arbor

Aug 2022 - May 2026

*B.S.E, Computer Science*

*Ann Arbor, MI*

**GPA:** 3.95 | **Activities:** V1 @ Michigan, Michigan Venture Club, UM Autonomous Robotic Vehicle

**Coursework:** Data Structures & Algorithms, Distributed Systems, Web Systems, Computer Architecture, Analysis of Algorithms, Technical Communication, Linear Algebra, Discrete Math

## EXPERIENCE

### Glean

May 2025 – Aug 2025

*Software Engineer Intern - Infrastructure Security*

*Palo Alto, CA*

- Engineered a URL filtering engine in Java for crawler network traffic replacing AWS DNS Firewall, saving \$8200 in monthly company-wide networking costs while providing fine-grained control over 4M+ daily egress requests.
- Deployed DNS query logging infrastructure with Terraform and implemented Hive SQL partitioning, enabling sub-second query response times and threat analysis of egress activity.
- Authored a WAF testing script in Python with parameterized payloads, enabling one-command, repeatable validation of rule changes and reducing weeks of manual QA testing time.
- Lead efforts to open-source GleanProxy, a Java proxy for private subnet connections, including setting up a build system with Bazel and CI with GitHub Actions, enabling external security analysis and community contributions.

### Courier Health

Sep 2024 – Nov 2024

*Software Engineer Intern - Observability*

*New York City, NY*

- Engineered a metrics collection system for the data ingestion pipeline processing 500+ GB daily using TypeScript, tracking completion time, success rate, data integrity, and other information in PostgreSQL.
- Deployed a GraphQL API through AWS Lambda for metrics retrieval and visualized using React, providing critical pipeline observability and diagnostics, bringing failure investigation time from 5+ minutes down to <60 seconds.
- Developed an algorithm to recursively fetch and visualize field-level modification histories of objects in AWS DynamoDB, enabling engineers and customer support to track granular changes in patient data.
- Organized stakeholder meetings, gathered requirements, and created design proposals, driving product iteration.

### Vectra AI

May 2024 – Aug 2024

*Software Engineer Intern - Compute Platform*

*Austin, TX*

- Piloted scalable event-driven architecture for high workload tasks with Python and Celery, cutting AWS costs by 25%, halving CPU and memory allocation, and eliminating the need for 13 Kubernetes cronjob deployments.
- Minimized concurrent Celery broker and backend connections by optimizing pool sizes, lowering memory footprint by 34% for Redis, 10% for MariaDB, and driving down cloud compute costs.
- Leveraged Terraform to orchestrate S3 Access Point integrations and visualized time-series bucket usage data through Grafana, providing process-level cost observability and identifying areas for expense reduction.

### CriTech Research

May 2023 – Aug 2023

*Software Engineer Intern - Analytics Engine*

*Saline, MI*

- Shipped redesigned endpoints for a medical patient portal using C# and .NET Core, removing unnecessary MySQL queries and accommodating a 10% growth in compliance data requests.

## PROJECTS

### quarry.video | NextJS, Python, Django, Go, Terraform, MongoDB

- Architected a full-stack application with NextJS, Django, MongoDB, and Prisma, providing a robust in-browser interface for short-form content generation, video editing, and data visualization.

### Distributed Key-Value Store | Go, Networking, Concurrency

- Built a fault-tolerant and highly available key-value store using Paxos for replication and sharding for scalability.

## SKILLS

**Languages:** Python, Go, TypeScript, JavaScript, Java, C++, SQL

**Technologies:** Linux, Git, Docker, Terraform, Kubernetes, FFmpeg, Django, Flask, NextJS, GraphQL

**Interests:** Soccer, Investing, Traveling, Hiking, Cats, Lifting