Jonas Groening

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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, Operating 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.
- Built an AI agent using **Python**, **Google ADK**, and **FastMCP** tools to respond to customer security questionnaires, accelerating deal closure by minimizing security review effort.
- Authored a firewall 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 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