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**: Michigan Venture Club, V1 @ Michigan, 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 – Present
Software Engineer Intern - Crawler Infrastructure *Palo Alto, CA*
- Engineered a hostname filtering engine for crawler network traffic replacing AWS DNS Firewall, reducing monthly networking costs by 65% while providing fine-grained control over 8M+ 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.
- Leading 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 - Data Platform *New York City, NY*
- Engineered a metrics collection system for the data ingestion pipeline processing 100+ files 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 - Distributed Compute *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.
- Optimized API reliability by adding 100% coverage tests (unit, integration, blackbox) to a CI pipeline, saving $\sim$2 hours of manual testing weekly and providing high service availability.

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