

Ri Hong

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10× Hackathon Winner · Software Engineer · Cloud Infrastructure · Fullstack Engineer

EDUCATION

University of Waterloo

2022 – 2027

Bachelor of Computer Science (Co-op) · GPA: 3.9/4.0

- Relevant coursework: Algorithms, Data Structures, Object-Oriented Programming, Databases, Distributed Systems, Operating Systems, Computer Networks

SKILLS

Languages: Go, Python, Java, C/C++, TypeScript, JavaScript

Technologies: Kubernetes, Terraform, Docker, AWS, GCP, gRPC, Temporal, Linux, PostgreSQL, React, Next.js

EXPERIENCE

Groq

Sept 2025 – Dec 2025

Software Engineering Intern

Toronto, ON

- Engineered multi-region infrastructure with **Terraform** and **Kubernetes** on GCP, enabling horizontally scalable workloads and cutting deployment time by 24%; built observability **tools** measuring engineering productivity for 400+ engineers.
- Designed and launched an observability platform providing actionable insights through dashboards and analytics workflows, demonstrating end-to-end project ownership in a fast-paced team environment.

Base Power

Jan 2025 – Apr 2025

Software Engineering Intern

Austin, TX

- Led infrastructure initiatives transitioning trading simulations to cloud-native execution using **Temporal** Cloud, enabling 1000s of auto-retriable workflows; implemented **Go** routines for non-blocking async publishing, achieving 32% speedup.
- Built **software components** using **Protobuf** and **gRPC** for seamless communication between **Python** algorithm services and **Go** microservices, ensuring type safety and reducing serialization overhead by 20%.

Walnote.ai

Aug 2025 – Present

Founder & CTO

Toronto, ON

- Developed production platform using **Python** and **FastAPI**, processing 1,000+ animations with distributed GPU rendering; accelerated generation by segmenting code and implementing pipelined streaming workflows, reducing render latency from 12s to 2s.
- Scaled secure rendering and delivery with **Docker**, FFmpeg, Cloudflare R2, and **PostgreSQL**; led product strategy from prototype to production, raising \$20k pre-seed funding.

Trend Micro

May 2024 – Aug 2024

Software Engineering Intern

Ottawa, ON

- Upgraded legacy Deep Security Manager from JDK 8 to JDK 11, modernizing codebase for 250+ million global customers; revamped **Jenkins** CI/CD pipeline, achieving 35% increase in automation efficiency.
- Built and maintained development **tools** and infrastructure, refactoring monolithic codebases into microservices and cutting deployment errors by 30%; resolved 40+ installation issues on **Linux** EC2 instances.

PROJECTS

HomeLab | Linux, Proxmox, Ansible, Kubernetes

Apr 2025

- Deployed **Kubernetes** cluster on Proxmox with **Terraform** + **Ansible**, enabling scalable, self-healing microservices and secure HTTPS traffic with Nginx + Cloudflare routing.

DistilBERT Sentiment Analysis | PyTorch, GCP, Kubernetes, Terraform

Sept 2025

- Engineered production-grade sentiment analysis service achieving 92.5% accuracy, deployed on GKE with **Terraform**; implemented end-to-end MLOps pipeline with MLflow, DVC, and BentoML for model serving.

Neural Style Transfer Engine | PyTorch, CUDA, FastAPI, Docker

Sept 2025

- Engineered high-performance system with custom CUDA kernels, achieving 8x faster style transfer; built scalable REST API with **FastAPI** and containerized with **Docker** for production deployment.