Ri Hong

riri.hong@gmail.com | github.com/Ri-Hong | linkedin.com/in/ririhong

10× Hackathon Winner · Distributed Systems · Cloud Infrastructure · Software 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, Distributed Systems, Operating Systems, Databases, Computer Networks

SKILLS

Languages: Go, Python, C/C++, Java, TypeScript, JavaScript, HTML, CSS
Technologies: Kubernetes, Terraform, Docker, AWS, GCP, Linux, PostgreSQL, Temporal, gRPC, React, Next.js
Distributed Systems: Multi-threading, Concurrency, Scalability, Performance Optimization, Caching, Queuing

EXPERIENCE

Groq
Sept 2025 – Dec 2025

Software Engineering Intern — *Toronto, ON*

- Engineered multi-region **distributed** infrastructure with **Terraform** and **Kubernetes** on GCP, enabling horizontally **scalable** AI/ML workloads and cutting deployment time by 24%.
- Designed and launched an observability platform to measure engineering productivity and AI coding tool adoption, providing actionable insights for 400+ engineers at **scale**.

Base Power
Jan 2025 – Apr 2025

Software Engineering Intern — *Austin, TX*

- Improved trading simulation reliability and **scalability** by transitioning to cloud-native execution using **Temporal** Cloud, enabling 1000s of auto-retriable workflows in a **distributed** system.
- Resolved performance bugs using **algorithm** optimization ($O(n^2)$ to $O(n \log n)$) and implemented non-blocking async publishing with **Go concurrency** and **multi-threading**, achieving 32% speedup.
- Implemented **Protobuf** and **gRPC** for communication between **Python** and **Go** microservices, reducing serialization overhead by 20%.

Trend Micro
May 2024 – Aug 2024

Software Engineering Intern — *Ottawa, ON*

- Upgraded legacy Deep Security Manager from JDK 8 to JDK 11 and revamped **Jenkins** CI/CD pipeline, achieving 35% increase in automation efficiency for 250M+ global customers.
- Refactored monolithic codebases into **microservices**, cutting deployment errors by 30% and improving **scalability**; resolved 40+ installation issues on **Linux EC2** instances.

Walnote.ai
Aug 2025 – Present

Founder & CTO — *Toronto, ON*

- Launched AI platform with **distributed Python** + **FastAPI** pipeline processing 1,000+ animations; accelerated generation using **distributed** GPU rendering, reducing latency from 12s to 2s.

PROJECTS

DistilBERT Sentiment Analysis | *PyTorch, GCP, Kubernetes, Terraform*
Sept 2025

- Engineered production-grade sentiment analysis service (92.5% accuracy) deployed on GKE with **Terraform** and **Kubernetes**; optimized with **distributed** GPU training, reducing training time by 40%.

HomeLab | *Linux, Proxmox, Ansible, Kubernetes*
Apr 2025

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

Trasee | *Pyodide, React, TypeScript, Vite, React Flow*
Oct 2025

- Built real-time **Python** code visualizer recognizing **data structures** and **algorithms** using two-phase static + runtime analysis pipeline with **Pyodide** WebAssembly.