Ryan Ho

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Education

Cornell University, College of Engineering Ithaca, NY

B.S. Computer Science *August 2022 - December 2025*

- **Relevant Coursework:** Systems Programming, Operating (Computer) Systems, Computer Vision, Machine Learning, Data Science, Algorithms, OOP & Data Structures, Functional Programming, Discrete Structures, Linear Algebra

Egg Harbor Township High School Egg Harbor Township, NJ

Experience

Datadog — Software Engineering Intern June 2025 – August 2025

- Built observability APIs in Golang and TypeScript to enable monitoring of frontend applications within a unified service inventory, and developed a persistent custom column selector (backed by local key-value stores) that allows users to design personalized dashboards. Shipped to production and adopted at scale with 12.32M+ real-time user interactions
- Architected a gRPC-based incident response package with rate-limiting and circuit-breaking features. Leveraged by on-call engineers to mitigate SEV incidents; deployed to cross-team Datadog backend services. Wrote documentation.

Cisco — Software Engineering Intern May 2024 – September 2024

- Shipped two new production features for a distributed real-time metric retrieval processing platform using gRPC requests, collaborating with deployment teams to scope and design workflows to support commonly requested use cases
- Pioneered the launch of a network detection and mitigation tool, monitoring privacy scores of various LLM applications

Plantalysis — Software Development Intern March 2023 – August 2023

- Developed an API orchestration layer, consolidating 13 services into a streamlined RESTful microservice architecture
- Led a team of 8 in designing a type-safe backend architecture using TypeScript and Node, and a responsive front-end with Next. Leveraged Stale-While-Revalidate with React Hooks to optimize data-fetching and reduce access latency
- Implemented data access strategies with Supabase, integrating Row Level Security protocols to hash and protect data

Projects

DRUIDS Chatbot | *TypeScript, LlamaIndex*

- Designed an AI chatbot with an MCP server to streamline access to design components across Datadog frontend teams
- Integrated RAG with vector search over internal documents, reduced inference latency via caching, deployed to UI

GoDM | *Golang, TypeScript*

- Implemented a distributed system monitoring service with agent-based data collection and real-time metric aggregation
- Developed a metric query system with customizable time & space aggregation, allowing users to define data granularity

got | *OCaml*

- Architected a lightweight version-control CLI tool in OCaml, incorporating file marshaling and binary serialization
- Wrote end-to-end unit tests to ensure data accuracy between serializations and debugged file-system race conditions

Activities and Leadership

Cornell Data Science | Technical Chair, Data Engineer September 2022 - Current

- Created web application to enhance club infrastructure and developed internal services to streamline recruitment
- Implemented motion-detection for facial recognition system in C++ using OpenCV to achieve low-latency video capture

Cornell Bowers College of Computing | Teaching Assistant August 2024 - Current

- Served as a teaching assistant for Computer System Organization and Programming (FA24), Operating Systems (SP25), Systems Programming (FA25).
- Conducted weekly office hours, delivering explanations for assignments and consistently receiving outstanding feedback.
- Evaluated student homework and projects on a weekly basis, offering feedback and personalized guidance on corrections

Technical Skills

Languages: Golang, C++, C, Python, Java, OCaml, TypeScript/JavaScript, SQL, Hack (HHVM)
Technologies: React, Node, Express, Next, Flask, Django, TensorFlow, PyTorch, PostgreSQL, MySQL, MongoDB
Developer Tools: Git, Docker, Ubuntu, Datadog, AWS (Lambda, EC2, Route53, EventBridge), CI/CD