Ryan Ho

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EDUCATION

CORNELL UNIVERSITY
BS in Computer Science
Dec 2025 | Ithaca, NY
GPA: 3.7 / 4.0

EGG HARBOR TOWNSHIP HIGH SCHOOL
June 2022 | Egg Harbor Twp, NJ
GPA: 106.500 / 100.000

LINKS

Portfolio:// **ryanisho**
GitHub:// **ryanisho**
LinkedIn:// **ryanisho**

COURSEWORK

OOP & Data Structures (Java)
Functional Programming (OCaml)
Analysis of Algorithms
Computer Systems/Organization
Machine Learning
Computer Vision
Data Science for Engineers
Probability and Inference
Discrete Structures
Linear Algebra

SKILLS

PROGRAMMING

Python • Java • JavaScript/TypeScript • C++ • C • Ruby • Go • PHP • HTML/CSS • OCaml • R • SQL • Swift(UI) • Kotlin • MATLAB

TECHNOLOGIES

React • Express • Next • Ruby on Rails • Flask • Django • scikit-learn • numpy • pandas • OpenCV • TensorFlow • PyTorch • Mongo • Dynamo • SQLite/SQLAlchemy • Ubuntu • Vercel • Git/GitHub • Docker • AWS/GCP

AWARDS

Z-Fellows Finalist • Ingenious+ Youth Innovation Challenge Winner • 2022 BRH Hackathon: Best Hack for User Accessibility • 2022 NJ FBLA: 1^{st} place Web Design

EXPERIENCE

CISCO | Software Engineer Intern
April 2024 – August 2024 | San Jose, CA

- Re-designed Cisco AWI user interface with React/Tailwind and optimized API interactions through asynchronous functions.
- Optimized backend microservices in Golang for efficient VPC/VM metric retrieval across AWS, GCP, and Azure.
- Launched development of generative-AI based network proxy for dynamic network threat detection and mitigation.

CORNELL DATA SCIENCE | Data Engineering Subteam
October 2022 – Current | Ithaca, NY

- Implemented motion-detection and bounding-boxes for facial recognition system in C++ using OpenCV to achieve low-latency capture and model prediction on images
- Engineered front-end for AI-focused mobile study app using Swift UI and React Native
- Created Flask web-app using CV and cosine similarity to detect hospital bill anomalies and generated analysis report resulting in up to 30% savings in healthcare costs

ALTUM LABS | Software Development Intern
March 2023 – Septemer 2023 | New York, NY

- Developed a Python .MZXML parser to extract compound ionization levels and peaks
- Designed database and access strategies using Supabase ensuring user-level security
- Created React application for users and optimized with SWR React hooks reducing data access latency by over 60% on common workloads
- Integrated backend using Express and Stripe API for secure user-payment handling

OKB HOPE FOUNDATION | Software Engineer Intern
December 2022 – January 2023 | Ithaca, NY

- Deployed app using MERN stack on Amazon EC2 to assist medical staff in Ghana
- Programmed server to store and process patient information using REST APIs
- Implemented an SSL certificate to secure API endpoint calls through Certbot/Nginx
- Collaborated directly with clients to prototype and design user-interface and developed functional and non-functional specifications

PROJECTS

GODFS | Golang
May 2024
Created a distributed file system in Golang, ensuring data replication and fault tolerance. Implemented sharding to optimize performance and scalability across multiple nodes.

GOT | OCaml
December 2023
Developed a command-line version control tool in OCaml, incorporating file marshalling and serialization for project initialization, file staging, and commit management, along with features for branch handling and commit log viewing.

SAKURA | Flask, Python, OpenAI
November 2022
Created a Flask-based web application leveraging LLVMs (OpenAI) to allow users to generate, analyze, and debug Python code with an aesthetically pleasing, user-friendly frontend.