

# Rosh Ho

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Software Engineer | Backend & Machine Learning Systems

## Education

### Columbia University

Sep 2021 - Aug 2025

Computer Science

New York, New York

- Paper (under review): ReGlove: A Soft Pneumatic Glove for Activities of Daily Living Assistance via Wrist-Mounted Vision ([arXiv:2512.11824](#))
- Paper (under review): Train Robots in a JIF: Joint Inverse and Forward Dynamics with Human and Robot Demonstrations ([arXiv:2503.12297](#))
- Awards: **Columbia University DevFest Hackathon 2<sup>nd</sup> place**; **Teacher's College Mental Health x AI Hackathon 1<sup>st</sup> place**; United Nations Millennium Fellowship.
- Courseworks: Deep Learning with Computer Vision, Natural Language Processing, Computational Aspects of Robotics, Robotics Manufacturing, Embedded Systems, Databases, Operating Systems

## Experience

### ReGlove Orthotics

Sep 2025 - Current

AI/ML (Perception) Software Engineer

Remote

- Improved picking accuracy by **23%** by developing a **custom computer-vision architecture** with channel separation for RGB-D depth processing and expanding the training dataset
- Reduced labeling costs by **\$5,000** and accelerated turnaround time by developing a **custom data-labeling wearable device**

### Columbia Business School

Jul 2024 - May 2025

Research Assistant

New York, New York

- Built production NLP pipeline processing 500K+ campaign messages daily using Python, spaCy, and AWS Lambda
- Fine-tuned BERT models for political sentiment classification, achieving 15% accuracy improvement over baseline

### Robotic Manipulation and Mobility Lab at Columbia University

Feb 2024 - May 2025

Robotics Research Assistant

Columbia University

- Developed **robotics control modules** in **C++** and **Python** within **ROS/Linux** environment to translate human grasping patterns into **real-time autonomous manipulation routines**.
- Built modular **data-collection systems** that reduced preprocessing time by **40%**, streamlining the mapping of human grasping patterns to robotic actuation.

### LINE

May 2024 - Sep 2024

Backend Software Engineering Intern

Taipei, Taiwan (ROC)

- Engineered **high-performance backend** for dynamic ad placement on streaming platforms using **Go**, **AWS**, and **MySQL**, **reducing request latency by 23%** in a **latency-sensitive production environment**.
- Designed and implemented **automated unit-testing pipeline** in **Go**, improving **API reliability** and **scalability** for a system serving **millions of daily requests**.

### Blackstone

May 2023 - Aug 2023

Software Engineering Intern

New York, New York

- Built a **Python-based monitoring pipeline** for simulated data center systems, applying **AI-driven anomaly detection** to sensor data (temperature, power, throughput).
- Deployed results to a **Grafana dashboard** with **Prometheus** and automated weekly reporting using **Airflow**, improving operational insights and reducing manual analysis.

### Intel

May 2022 - Sep 2022

IoT Engineering Intern

Taipei, Taiwan (ROC)

- Deployed IoT-enabled streetlights, driving energy savings and cost reductions. Configured Intel hardware for Computex 2018 demos, showcasing advanced IoT solutions globally.

## Skills

**Programming Languages** Python, C/C++, Go, SQL

**Technologies** Linux, Git, ROS, MySQL, AWS, Jupyter, CAD, Fusion 360, SCRUM

**Specialties** Low-latency systems, algorithm optimization, automated testing, data analysis