# **Arhan Jain**

arhan.j04@gmail.com | SF Bay Area & Seattle | U.S. Citizen

#### EDUCATION

#### University of Washington

**MS, Computer Science** 

- **BS**, Computer Science
- Awards: Purple & Gold Scholarship (\$16,800), Benjamin Franklin Scholarship (\$500), Dean's Scholar
- Relevant Coursework: Reinforcement Learning, Autonomous Robotics, Operating Systems, Distributed Systems, Networks, Data Structures & Parallelism, Multivariable Calculus, Linear Algebra, Discrete Math

#### **EXPERIENCE**

### WEIRD Lab - University of Washington

- AI Robotics Researcher 2 publications
- Trained a robot in simulation with 70% success in unseen real-world environments (SCAR, CoRL 2024) •
- Led collaborative effort with 13 institutions to curate a 350 hour diverse robot dataset (DROID, RSS 2024)
- Evaluated Vision-Language Model robot policies to demonstrate world knowledge and generalization
- Explored human-in-the-loop model finetuning methods to help robot policies adapt to new environments

#### **MIR Lab - Harvey Mudd College**

#### NLP & Signal Processing Research Intern - 1 publication

- Conducted machine learning and signal processing research for a \$500,000 NSF funded grant
- Proposed classical piano dataset for music research with 200,000 training fragments (PBSCSR, TISMIR 2023)
- Trained 20+ composer classification models, including GPT2/3, vision transformers, and CNNs
- Invented an algorithm for audio tampering detection to reduce computation from exponential to quadratic

#### Arrcus, Inc.

#### Software Engineering Intern

- Optimized the analytics pipeline for a Linux network operating system by integrating real-time, on-device data processing; enhanced troubleshooting capabilities and reduced compute overhead by over 70%
- Protected thousands of customer devices with a performant anomaly detection system handling 400 Gbps
- Developed a light-weight machine learning model with continuous learning for real-time anomaly detection

#### **PROJECTS & ACCOLADES**

### IEEE ICRA 2024 Best Paper Award: Open X-Embodiment: Robotic Learning Datasets and RT-X Models

#### **StreetSmart:** 1st Place Hackathon Winner: Navigation with Safety

- Produced a mobile application for safe pedestrian navigation using Seattle police department crime data
- Constructed an undirected graph with safety score weights and used A\* graph traversal to generate routes

### Natural Language Robotics Control System: Talk to robots!

Developed a zero-shot robotics reasoning engine through GPT 3.5 prompt engineering interfacing with a Roblox simulation environment for CSE 571 (Graduate-level Autonomous Robotics) Final Project

#### SKILLS

Languages: Python, C, C++, Java, Lua, Javascript, Typescript

Tools: PyTorch, TensorFlow, JAX, OpenCV, ROS, Polymetis, IsaacSim, AWS, Docker, Linux, React, Flask, NoSQL

Jan 2023 – July 2023

Claremont, CA

### Jun 2022 – Aug 2022

#### San Jose, CA

### Flask, IOS, Mobile Application

LLMs, Robotics, NLP



Jun 2025

Jun 2024

https://github.com/arhanjain

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## Sept 2023 – Present

Seattle, WA