

Arnav Thareja

☎ 858.252.9415 | ✉ athareja@cs.washington.edu

🌐 arnavthareja.github.io | 🌐 linkedin.com/in/arnavthareja | 🌐 github.com/arnavthareja

Education

University of Washington

Master of Science, Computer Science

Expected June 2024

Seattle, WA

Coursework: Machine Learning, Deep Learning, Reinforcement Learning, Deep Robotic Learning

University of Washington

Bachelor of Science, Computer Science and Mathematics | GPA: 3.95

Expected December 2023

Seattle, WA

Coursework: Algorithms, Robotics, Computer Vision, Databases, Systems Programming, Optimization, Probability

Experience

Databricks

Software Engineer Intern

June 2023 – September 2023

Bellevue, WA

- Working as part of the benchmarking infrastructure team enabling performance benchmarking across Databricks products
- Extended internal benchmarking framework to support a suite of profiling options for integrated profiler
- Building an internal tool to simplify profiler result access, visualization, and comparison

Personal Robotics Lab

Undergraduate Researcher

May 2021 – Present

Seattle, WA

- Working on multi-agent autonomous navigation and task allocation with MuSHR cars
- Created an open-source architecture for completing pushing-based manipulation tasks with multiple non-holonomic robots
- Designed and built motion planning algorithms for non-holonomic multi-agent navigation and task allocation in C++
- Extended and tuned model predictive control for the multi-agent domain to eliminate collisions and improve robustness
- Built ROS (Robot Operating System) wrappers around algorithms to enable easy interfacing with existing systems
- Sped up robot trajectory comparison framework by 50x by directly analyzing ROS bags through the rosbag Python API
- Demonstrated and tested system capabilities and translation to real-world environments on physical robots

University of Washington

Teaching Assistant

March 2023 – June 2023

Seattle, WA

- Led lab sections and lab office hours for CSE 478: Autonomous Robotics
- Assisted students with conceptual robotics questions and robot software and hardware issues

Oracle Cloud Infrastructure

Software Engineer Intern

June 2022 – September 2022

Seattle, WA

- Worked as a part of the Virtual Machines Efficiency team within Oracle Cloud Infrastructure (OCI) Compute
- Designed and built a system to monitor usage of reserved compute resources and identify resources to be reclaimed
- Defined an actionable implementation strategy to address and fulfill system requirements
- Created internal usage metrics, dashboards, and alarms using Java and Oracle Monitoring Query Language (MQL)

Projects

Angles | DubHacks 2020 – Newsprint Track Finalist (Top 3 out of 70+ Projects)

devpost.com/software/angles-sqdzlt

- Developed a Chrome Extension that suggests news articles of opposite bias when a news website is visited
- Leveraged Google Cloud NLP with JavaScript to extract keywords from news articles to use in our opposite bias algorithm
- Selected as a finalist in the Newsprint track and recognized as one of the top 3 projects out of over 70 projects

Yearbook 2020 | Personal Project

yearbook-hhs.web.app

- Designed and developed a web application for students and graduates to sign yearbooks virtually during COVID-19
- Utilized JavaScript, HTML, CSS, and Google Firebase for user authentication, cloud storage, and NoSQL database

Skills

Languages

Java, C++, Python, Scala, C, JavaScript, HTML, CSS, SQL

Tools

NumPy, PyTorch, ROS (Robot Operating System), React, Docker, Linux, CMake, Git