Ajay Harilal

✉ :ajayh1@cs.washington.edu
 :https://github.com/ahari1/
☎ :(509) 579-1959

EXPERIENCE

Software Development Engineer Intern- Amazon, Seattle, WA   June 2024 – September 2024
- Developed a backend service that prevents redundant entries in financial ledger and accounting database from occurring due to repeated accounting entry corrections
- Developed a full stack service that allows clients to view the complete accounting status of various purchase events in relation to one purchase. Allows for the automation of the purchase lookup process, which previously required a manual lookup involving multiple services

Teaching Assistant - University of Washington, Seattle, WA   September 2022 – Present
- Teach algorithm development and analysis (CSE 421) to students in weekly 50-minute sections
- Maintain weekly office hours and monitor discussion board to clarify student questions
- Grade and provide constructive feedback on student assignments and exams

D.O.E. Intern – Pacific Northwest National Laboratory, Richland, WA   June 2023 – August 2023
- Applied principles of machine learning and computer vision to reflection high-energy electron diffraction (RHEED) patterns
- Utilized various image transformation techniques to allow for better clustering of images
- Assisted in the development of an automated synthesis tool based on classification of RHEED images at an early stage of the molecular-beam epitaxy deposition process
- Co-authored in paper published in Journal of Vacuum Science and Technology A

D.O.E. Intern – Pacific Northwest National Laboratory, Richland, WA   June 2022 – August 2022
- Developed rapid and accurate algorithm to analyze self-absorption within spectral lines of Li isotopes
- Reconstructed spectral lines to their non-self-absorbed state
- Co-authored in paper published in *Optics Express*

EDUCATION

B.S. Computer Science - University of Washington, Seattle, WA   June 2025
- Cumulative GPA: 3.95

M.S. Computer Science - University of Washington, Seattle, WA   June 2026

PUBLICATIONS

Influence of ambient gas on self-reversal in Li transitions relevant to isotopic analysis
- Article: https://doi.org/10.1364/OE.477990

Machine-learning-enabled on-the-fly analysis of RHEED patterns during thin film deposition by molecular beam epitaxy
- Article: https://doi.org/10.1116/6.0004493

PROJECTS

PointChess: Alternative Version of Chess
- Pieces move based on standard chess move as well as point value.

SKILLS

- **Languages**: Java, Python, C++/C, Javascript, SQL, HTML/CSS