

Asher Lantz

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A master's physics student industry software engineering experience

Education

SEP 2024 - PRESENT

University of Washington | Seattle, WA | M.S in Physics | GPA: 3.88/4.0

- **Relevant Coursework:** Quantum Computing (software and hardware), Quantum Physics

GRADUATED FEB 2020

Middlebury College | Middlebury, VT | B.A in Physics with Honors, Minor in Computer Science | GPA: 3.72/4.0

- **Relevant Coursework:** Algorithms, Data Structures
- **Thesis:** Quantum Entanglement in a Spin Glass during the Adiabatic Algorithm

Relevant Skills

Python: 8 years of experience in an both academic and industry context

LLM Use: 3 years working with code generating LLMs to optimize workflow

Research Experience

JUNE 2018 - MARCH 2021, FEB 2024 - PRESENT

Middlebury College | Middlebury, VT | Research Assistant

<https://github.com/adlantz/FairSampling>

Computational quantum information physics research under the guidance of Professor Chris Herdman in which I am examining the quantum adiabatic algorithm as an approach to finding the multiple degenerate ground states of an Ising model spin glass.

- Using **Python (NumPy, SciPy)** to numerically diagonalize the Hamiltonian of a quantum spin glass subject to a transverse field and calculate physical qualities of the ground state like Von Neumann entanglement entropy and the overlap distribution of the classical ground states.

Software Engineering Experience

FEB 2025 -MAY 2025

Thyme | Remote | Part-time Contracting Software Engineer

An AI powered finance web application startup where I implemented improvements across the backend (**Python**, Django, AWS) and frontend (Typescript, React).

JUNE 2024 - AUG 2024

Podsworth | Remote | Contracting Software Engineer

An early stage web application for automated professional grade audio processing. As the second engineer to join the team, I built out foundational features and improvements across the frontend (Typescript + React) and backend (AWS, Python).

JAN 2022 - OCT 2023

Trovata Inc. | Solana Beach, CA (Remote) | Software Engineer II

A fast paced financial technology startup where I worked on a small team to design and build the platform for a rapidly scaling web application. While I was there the amount of requests grew 5-10x and we maintained a 99.9% uptime.

JAN 2021 - DEC 2021

WealthForge | Richmond, VA (Remote) | QA Automation Engineer

A financial technology startup where I worked predominantly as a single person team to hugely expand the coverage of the company's build-time automated tests.

References

Dr. Chris Herdman
Assistant Professor
Middlebury College
cherdman@middlebury.edu

Ryan Felix
Manager - Data Platform
Trovata Inc.
ryan.felix@protonmail.com

Miscellaneous

- <https://github.com/adlantz/QiskitSG> - A personal project with **Qiskit**
- IBM Quantum Challenge 2024 Finisher