# Arin Gardner

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## EDUCATION

**Princeton University**  Princeton, NJ
B.A. in Computer Science  Expected Graduation: May 2024

## SKILLS

- **Programming Languages:** Java (Advanced), Python (Advanced), C (Intermediate), C++(Intermediate), Go-lang(Intermediate), JavaScript(Intermediate), HTML (Intermediate), R(Intermediate),
- **Applications/Tools:** Visual Studio Code, XCode, Anaconda, Excel (Charts, Vlookup, Pivot Tables), G Suite, MS Office, Adobe Creative Cloud Applications (Photoshop, After Effects, Premiere)
- **Languages:** English (Fluent), Japanese (Intermediate), Spanish (Intermediate)

## PROJECTS

**MIPS ISA Cycle-Accurate Simulation**  December 2023

- Worked with a group of 4 students to develop and optimize a MIPS ISA Simulation in C and C++, in order to understand the components involved in the deep backend of software. Improved the optimization of the simulation to increase the efficiency of integral components like the cache and cycle generator, for the purpose of dev-ops for processors' speedup.
- Wrote ~1000 lines of code, and spent 40+ hours developing the approach to the simulation, and rotated working on developing different sections as a team in order to understand every component of the simulation.

**Hate Speech Detection Utilizing the Vendi Score (Senior Thesis Research Work)**  August 2023 - Present

- Worked with the Vertaix Lab on a project that looked into the Vendi Score diversity metrics and analyzed the weighted outputs of certain words or sentences that were determined as hate speech by our algorithm, while utilizing cloud computing; measured performance of this algorithm implementation against other machine learning algorithm performances.
- Developed a qualitative definition of hate speech that could be applied to multiple social media platforms and be utilized in the monitoring of hate speech on these platforms.

## WORK EXPERIENCE

**Whitman College**  Princeton, NJ
*Residential College Advisor (RCA)*  July 2022 - Present

- Guide 20 freshmen throughout their first year orientation with tasks such as settling in, leading them around campus to orientation events, resolving roommate disputes, and giving advice on major/class inquiries.
- Collaborate with 12 fellow RCA's to host study breaks weekly, and work with 4 residential college staff to determine ways to improve quality of life at college weekly.

**Princeton University Electrical and Computer Engineering Department**  Princeton, NJ
*Quantum Cascade Laser Summer Research Intern*  June - August 2022

- Collected and analyzed data based on the structural composition of quantum cascade layers for ~15 hours weekly, while individually researching the topic for better knowledge to help with collaboration with advisors and other teams.
- Edited ~700 lines of code 3x a week in Python to improve and run tests on simulations for a laser composition design.

**Freshman Scholars Institute (FSI)**  Princeton, NJ
*Ways Of Knowing FSI Course Fellow*  June - August 2021

- Served as a Course Fellow/Assistant during summer 2021 for ~12 students, and was invited back the following 3 summers to reprise the same role.
- Helped lead small group discussions during the seminar and taught lessons; guided students through course readings and assignments for the text labs; Offered support and guidance to students outside of class or directed them to the necessary resources.

## LEADERSHIP EXPERIENCE

**Project BASTA,** New York, NY | *Fellow*  January 2023 - Present

- Selected to participate in a rigorous 10-week career prep program designed to support first-generation college students in landing a great entry-level job; spend 50+ hours networking and preparing for interviews.