


Eegan Ram

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Education

College.....

Stanford University 2024 – 2028

Planned Program: Physics BS + Computer Science MS

High School.....

The Davidson Academy of Nevada 2020 – 2024

4.0/4.0 UW GPA

Selected Coursework: Chinese III/IV, Advanced Physics, Calculus I/II, Advanced Chemistry

University of Nevada, Reno 2020 – 2024

Concurrent enrollment during high school

Selected Coursework: Quantum Mechanics (I and II), Differential Eqs., Linear Algebra, Multivariable Calculus

Programming experience.....

Work: Python (and Django), Java, SQL, \LaTeX . Personal: R

Selected work experience

Research internships.....

Researcher: Soljacic Photonics and Modern Electromagnetics Group @ MIT *July 2023 - Present*

Working on furthering research into quantum circuits with hybrid quantum-classical systems, with the goal of optimizing quantum chemistry simulations. Further development of research from RSI.

RSI participant: CEE Research Science Institute @ MIT *Summer 2023*

Selected among 100 students worldwide (out of > 1700) for the RSI. Conducted quantum information science research under the Soljacic Group. Produced a research project and paper that studied the applications of graph states in quantum computing to quantum chemistry problems; awarded top 10, gave encore presentation to panel of experts.

Research Assistant: Weinstein Lab @ University of Nevada, Reno *February 2022 – October 2023*

Configured lab hardware and developed custom software to assist with photon counting, error correction, and enabling unique/flexible experimental design while also conducting spin-state calculations to justify experimental methods.

Software.....

Researcher: Elfass Lab @ University of Nevada, Reno *March 2024 - May 2024*

Helped build a database for secure data storage and analysis for the group's work in seismology with national labs.

Software developer: AI Camp Inc. *August 2021 – October 2023*

Worked on using Data Science to optimize and automate servers for AI Camp. These processes were done using Python in AWS, Docker, nginx, and airflow servers. Helped achieve 90% cost reduction in company server costs.

Data Analyst: AI Camp Inc. *October 2020 – June 2021*

Utilized Data Analysis techniques for market analysis, to reach customers for the company's marketing strategy. Used Python and libraries such as Pandas and Numpy to gather and analyze the company's data.

Software developer: LinkHSSummer 2022

Developed a frontend system that incorporates various APIs and ML classification models to find and recommend jobs and internships to teenagers.

Programming Lead: First Tech Challenge RoboticsJune 2022 – March 2023

Created team codebase to improve Computer Vision and Localization algorithms using physics. Won Finalist Alliance Captains + Connect Award @ Regionals.

Volunteer and outreach

Chair: Reno Youth City CouncilNovember 2023 – present

Elected chair out of 7 appointees for the Reno Youth City Council, where I am working to help advise educational policy and outreach efforts to the youth of the city of Reno and coordinating events to help youth learn about career development.

Lead Facilitator: NASA Astro Camp, Nevada2022 & 2023

Ran 55+ NASA Astro Camps that brought STEM education about engineering & astrophysics to elementary and middle school students in the Reno area. Reached 700+ students working as curriculum design lead/lead facilitator.

Other

President: Davidson Academy Physics Club2022 – May 2024

Helping members prepare for physics contests; hold experiments and demos.

Creator: AliveNevadaCreated Fall 2022

Developed the AliveNevada WebApp to utilize computer vision algorithms in assisting with gathering conservation data for research on individuals' phones.

Teacher: Davidson Academy Intro to Scientific ResearchAugust 2023 - May 2024

Designed the curriculum to teach High School students the fundamentals of scientific research like data analysis with Python and R, how to use L^AT_EX, how to write a paper and literature review, and give a scientific talk. Helping students complete independent research projects to present at the 2024 UNR undergraduate research symposium.

Student Aide: Chinese I, American Literature, Advanced PhysicsAugust 2022 - May 2024

Assisted the Chinese, Physics, and English depts. with teaching by conducting lessons, creating learning material, and grading homework/tests. Served for the Chinese & English departments in the 2022-2023 school year, and for the Physics department in the 2023-2024 school year.

Awards

- Research Science Institute Encore Presentation (Top 10): awarded August 2023
- Congressional App Challenge 2nd Place: awarded January 2023
- FIRST Finalist Alliance Captain Award: awarded February 2023
- FIRST Connect Award: awarded February 2023
- National Cyber League #10 Team Power Rankings: awarded December 2022
- Presidential Volunteer Service Award: awarded November 2022
- National Merit Finalist: awarded September 2023

Selected Test Scores

ACT: 36/36/36/36

AP Physics C/Biology/Calculus BC/Statistics/Computer Science A: 5