

Eegan Ram

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Education

High School.....

The Davidson Academy of Nevada

2020 – 2024

3.99 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, Linear Algebra, Multivariable Calculus

Programming experience.....

Python (and Django), Java, R, SQL, L^AT_EX.

Selected work experience

Research internships.....

Researcher: Soljagic Photonics and Modern Electromagnetics Group @ MIT

Jul 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 Soljagic 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

Feb 2022 – present

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.....

Software developer: AI Camp Inc.

Aug 2021 – present

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.

Oct 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: LinkHS

Summer 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 Robotics

June 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.....

Lead Facilitator: Reno Youth City Council *November 2023 – present*

Selected as one 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, Nevada *June 2022 – present*

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 Club *2022 – present*

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

Creator: AliveNevada *Fall 2022 - Present*

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 Research *August 2023 - May 2024*

Designed the curriculum for a class myself 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 their independent research projects to present at the 2024 UNR undergraduate research symposium.

Student Aide: Chinese I, American Literature, Advanced Physics *August 2022 - Present*

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 Semifinalist: awarded September 2023

Test Scores

ACT: 36/36/36/36

AP Computer Science A: 5

AP Physics C: Mechanics: 5

AP Physics C: Electricity & Magnetism: 5

AP Calculus BC: 5

AP Biology: 5

AP Statistics: 5

AP English Literature: 5

AP Microeconomics: 5