

Hayden Karas

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Efficient and detail-oriented software developer with 2 years of non-professional experience in back-end development, research, and software engineering. Proficient in a range of programming languages including Python, C, C#, JavaScript, and Java. Strong understanding of computer science principles and experience with software development tools such as GitHub and Visual Studio. Possesses excellent critical thinking, leadership, and learning skills and has experience working in a team environment. Currently looking to pursue a degree in computer science and mathematics starting next year.

Work Experience

Sandwich Artist — Subway — Warwick, RI — August 2023 to Present

- Handles transactions in cash and card totaling \$1000+ per day
- Maintains a clean and safe environment; washes dishes, cleans tables, sweeps, mops, cleans the oven
- Trained over 4 coworkers, teaching them skills in customer service, food preparation, money handling, safety, and cleaning.
- Opens and closes various stores, ensuring that machines are disabled, money is safely stored, food is put away, products are properly labeled, and inventory is accounted for.
- Prepares various meats, vegetables, bread, and cookies daily, ensuring safe and clean food that meets Subway and FDA standards.

Astronomy Intern Research Assistant — Brown University — Providence, RI — August 2023 to September 2024

- Interned for Professor Dell'Antonio during the summer of 2023 and 2024, Worked within a team consisting of 3 High School interns and Brown Professor Dell'Antonio
- Located over 20 potential galaxy clusters using images of the sky
- Ran various programs to estimate the masses of potential galaxy clusters using local gravitational lensing, creating mass maps used in various other research projects.
- Coded over 7 programs in Python and Bash to automate data collection.
- Researched the correlation between visible matter and dark matter using gravitational maps and visible maps of galaxies, using statistical knowledge to create graphs, confidence intervals, and probabilities.

Education

Cranston High School West - Cranston, RI

- Unweighted GPA of 3.96/4, Weighted GPA of 4.72/5
- 1550 SAT (790 Math 760 Reading)
- Self-studied for AP CSA (5), AP CSP (4), and AP Calc AB (5)
- Currently self-studying for AP Physics C: E&M
- Completed “CS50x: Introduction to Computer Science” by HarvardX

Dual Enrollment

- **University of Rhode Island** - Writing to Inform and Explain

- **Community College of Rhode Island** - Precalculus and Biology
- **New England Institute of Technology** - Computer Science with Python

Awards

- National Merit Semi-Finalist - September 2024 (the only person in grade to achieve)
- Interactive Game and App Design State Winner - March 2023/24
- Interactive Game and App Design Nationals Top 10 - July 2023/24
- Jae S Lim Award for Mathematics - April 2024
- National Honor Society Acceptance - April 2024
- Math Team Top School Scorer - May 2024
- National Spanish Exam Silver Medal - February 2023
- RIMTA Math Student of The Year Nominee

Certifications

- Computer Programming, Advanced - October 2024
- Computer Programming 2 Python - October 2024
- Computer Programming I - October 2024
- Computer Science Principles - May 2024

Groups

CHSW Math Team - Captain/President

- Appointed Captain of the school math team starting in Sophomore year
- Created/organized teams for Rhode Island Math League (RIML) competitions
- Tutored math team members to prepare them for competitions, as well as non-math team members, to improve their grades in math class
- Created a "Varsity" Math Team in Senior year to prepare top math students for the Rhode Island Math League competitions, resulting in the highest school scores in recent history.
- Participated in RIML playoffs in Sophomore and Junior year.
- Won the most improved school in my sophomore year and won the top school score in my junior year.

SkillsUSA - Team leader, treasurer, competitor

- Competitor in the Game Development competition (10th and 11th grade)
 - Won state competition twice
 - Led a team of 3 to create 3 different games over 2 years
 - Won 7th and 8th place nationally out of 25 competing teams
- Treasurer of SkillsUSA Cranston Chapter (11th and 12th grade)
 - Achieved the first tier of the Chapter Excellence Program
 - Part of the founding group of the SkillsUSA Cranston Chapter

Marching Band/Pep Band - squad leader, flutist

- Appointed squad leader starting Sophomore year.
- Taught new band members how to play instruments and how to march.
- Participated in community events, sports games, and parades with the pep band.
- Recruited new members to the marching band and pep band.