# Steven Romero-Ruiz

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# EDUCATION

## California Institute of Technology | Pasadena, CA *Expected Graduation: June 2027*

*B.S. - Computer Science Cumulative GPA: 4.0*

# SKILLS & TECHNICAL TOOLS

**Languages:** Java,Python, C, MATLAB, HTML, CSS, JavaScript

**Technologies:** VSCode, PyTorch, Git, Anaconda, IntelliJ, PyCharm, Unix, Jupyter Notebook

# EXPERIENCE

## Carnegie Astrophysics Summer Student Internship Program | Carnegie Science Observatory *Jun 2024 - Aug 2024*

* Developed a Python script that compiled new HI Kinematic distances of known pulsars to assist in developing a new electron density model for the Milky Way galaxy.
* Implemented a **Bayesian inference** approach based on a **Monte Carlo algorithm** to mitigate uncertainties in the newly compiled HI Kinematic distances.
* The models produced will be presented at the American Astronomical Society conference in January 2025.

## Machine Learning Researcher | California Institute of Technology *Jul 2023 - Sep 2023*

* Collaborated with a Postdoctoral fellow to design a **neural network** using Python to predict the residual surface profile of selenium with the input of the micro-indentation test performed on the material.
* Inspected and normalized thousands of files consisting of force graphs and residual surface profile graphs to train the **neural network**.

# EXTRA-CURRICULARS

## NASA Virginia Space Coast Scholars *Dec 2020 - Jul 2021*

* Designed a mission using the Airborne Science Program to test aerosols that would be able to mitigate the rapid melting of ice glaciers in the Arctic.
* Was the instrument specialist of the mission where I researched and presented instrumentation aboard the aircraft that would measure the results of our desired mission goal.

## NASA Virginia Aerospace Science and Technology Scholars *Dec 2021- Jul 2022*

* Collaboratively designed a manned mission to Mars.
* Involved in the Science and Surface Operations team of the mission where I was appointed the radiation mitigation specialist.
* Determined radiation mitigation tactics for the vehicles, laboratory, and EVA suits.

# LEADERSHIP

## Saint William of York Catholic Church *Nov 2015 – Sep 2022*

* Led a group of five altar servers in performing sacraments during church proceedings each week.
* Prepared and served breakfast to families and students in religious education on Sundays.

## Vice-President & Co-Founder | CS Careers @ CIT *Oct 2023 – Present*

* Collaborated with the President and other club officers to establish a clear vision and goals for the club.
* Help create a close-knit environment for computer science students by organizing recruiting events and workshops.

# HONORS

* QuestBridge National College Prep Scholars Recipient (March 2022)
* QuestBridge National College Match Recipient (December 2022)
* Hispanic Heritage Foundation Youth Awards Gold Medal in the Engineering Category for the Blue Region (December 2022)