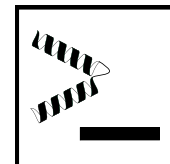


# ADRIAN ROSS CARRETERO CHAVEZ

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## Summary

Highly-achieving high school graduate with 4.63 weighted GPA, 1590 SAT, and AP-level coursework. MIT Class of 2024. Interested in applications of computation to science, especially in the fields of biochemistry and systems biology. Currently performing research in said fields in an internship with Dr. Irina Kufareva at the UCSD Skaggs School of Pharmacy. Multiple years' experience working with computer software and hardware with extensive knowledge of Linux environments.

## Education

- **Massachusetts Institute of Technology — Class of 2024** *(Currently on gap year prior to enrollment)*
  - Intended Major: Course 6-7 (Computer Science & Molecular Biology)
- **Mater Dei Catholic High School (MDCHS) — Class of 2019**
  - Class Rank (10<sup>th</sup>-12<sup>th</sup>) — 1<sup>st</sup>
  - GPA — 4.63 Weighted, 3.99 Unweighted
  - AP Coursework (Score for all exams: 5) — Environmental Science, Chemistry, Calculus AB & BC, Physics C: Mechanics, Biology, English Literature, US History, US Gov & Politics
- SAT — 1590 (800 Math/790 EBRW) — 99+<sup>th</sup> Percentile
- SAT Subject Tests— Math II: 800 — Chemistry: 800

## Work Experience

- **Staff Research Associate — UCSD Skaggs School of Pharmacy and Pharmaceutical Sciences**  
*Volunteer: July 2018–August 2018, February 2019–October 2019*  
*Staff Research Associate: October 2019–Present (16 hrs/wk)*
  - Analyzed protein structure using the MolSoft ICM protein modeling suite, implementing a new method of protein binding pocket similarity scoring in ICMScript (Summer 2018)
  - Wrote scripts to validate, process, and visualize Boolean models of cell signaling networks using Python and R (Spring–Summer 2019)
  - Performed normalization and analysis of tandem-mass-tag MS/MS phosphoproteomic data using R (Summer 2019–Present)
- **Instructor — Mathnasium of Mission Gorge**  
*August 2019–Present (12 hrs/wk)*
- **IT Internship — Mater Dei Catholic High School**  
*August 2017–May 2018, January 2019–May 2019 (5 hrs/wk)*

## Awards and Honors

- |   |  |
|---|--|
| • National Merit Scholarship Program Finalist   | • SDSU Big Data Hackathon: 3 <sup>rd</sup> Place (2017), |
| • National Hispanic Recognition Program Scholar | Best Young Geocomputational Thinker (2019)               |
| • California Mathematics Council Award          | • 2017-18 San Diego Fencing Open Cup Third               |
| • National AP Scholar                           | Place in Sabre   |
| • National Honor Society Member                 | • MDCHS Presidential Scholarship (Full Ride)             |
| • Kyoto Prize Scholarship 2019 Semifinalist     | • California Scholarship Federation Member               |

## Interests and Skills

- Bilingual — Native speaker of English and Spanish
- Programming Languages — HTML5, CSS3, JavaScript (Node.js), Python (NumPy), ICMScript, R
  - Able to quickly adapt to new languages through hands-on experience
- Familiar with \*nix bash environments (Ubuntu, Debian, Arch, CentOS)
- Hobbies:
  - Hiking and Backpacking — The source of my appreciation for the natural world and its beauty
  - Travel — Have visited countries all over the world and can't wait to see more!