

# Santiago Giner

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## Education

### Harvard University

Cambridge, MA

*A.B. Candidate in Physics and Astrophysics*

*Sep. 2020 – Present*

- GPA: 4.0/4.0. Expected Graduation Date: May, 2024
- Relevant Coursework: Physics 15a, Math 21a, CS50

### Instituto Educacional Henry Clay

Caracas, Venezuela

*High School Diploma*

*Sep. 2005 – Jun. 2020*

- *Summa cum laude* | GPA: 19.94/20.00
- Dedicated 25 h/week to Model of United Nations, participating in 20 different state and national debates.
- Was Secretary General of the school's MUN 2020 in which 150+ students participated, with 30 faculty advisors.
- SAT: 1520 (M: 780; R&W: 740) | Math Level 2 SAT II: 800 | Physics SAT II: 780

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## Experience

### Student researcher

Dec. 2020 – Jan. 2021

*Wolfram Research - Wolfram Physics Project*

*Remote, part-time*

- Attended the first-ever Wolfram Physics Winter School, part of the Wolfram Physics Project.
- Conducted a project on the characterization of the dimensionality of Wolfram Model evolution systems—a new framework for fundamental physics. Developed methods for estimating dimension based on Causal Set Theory.
- Analyzed the effects that a perturbation in the graph would have on the local dimension estimation.
- Found that dimensional perturbations can exist in these systems; summarized findings in a [community post](#).
- Moved on to be a code developer at [SetReplace](#) a library which allows for easy use of the Wolfram Models.

### Editor & Columnist

Jan. 2021 – Present

*The Harvard Crimson*

*Cambridge, MA*

- Part of the Editorial Board of The Crimson, where I write [opinion articles](#), attend three weekly meetings to opine on current events, and contribute to the writing of staff editorials.
- Currently writing a reported column on ways of rethinking how academia functions today.

### Club Member

Nov. 2020 – Present

*Harvard SEAS Chapter of Engineers Without Borders USA*

*Cambridge, MA*

- Member of the Fundraising committee, where I helped raise over \$1600 for projects involving the construction of water distribution systems in Kibuo, Kenya and Los Sanchez, Dominican Republic.

### Peer Tutor

Sep. 2015 – Jun. 2020

*Independent*

*Caracas, Venezuela*

- Taught high school physics, math, chemistry, biology, and English to peers at 5 schools in the state.
- Formed a community of approx. 25 students; currently developing my [own web page](#) to use for tutoring.

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## Projects & Activities

### Autonomous plant-growth system

Sep. 2019 – Mar. 2020

*Instituto Educacional Henry Clay*

*Caracas, Venezuela*

- Designed, built, and maintained an Arduino-based autonomous system that monitored the temperature and humidity of the environment of a plant and controlled a water pump and LED light based on the plant's needs.
- The system exhibited 12% more plant growth than control plants. Used findings for [senior thesis](#) at high school.

### British English Olympics (BEO)

Apr. 2018 & Apr. 2019

*Oxford International*

*London, England*

- Team captain of my school's 16-person team (twice, in 2018 and 2019) at the BEO, a 2-week competition in England that evaluates teams on public speaking, entrepreneurship, debate, and communication skills
- Achieved 2nd place out of 135 schools from 37 different countries in both years we participated.
- Topics debated included climate change, rise of artificial intelligence, and global healthcare.

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## Skills

**Web development:** Have created two websites: [Humanity](#) (CS50 final project) and [Samos](#) (tutoring website).

**Programming Languages:** Python, C, Wolfram Language, SQL, JavaScript, HTML, CSS

**Developer Tools:** Django, Flask, Jupyter Notebooks, Mathematica, Git, GitHub, VS Code, Linux