

WILLIAM HUANG

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EDUCATION

BS in Computer Science & Physics, Stanford University 2022-present
Coursework: CS 106B (Data Structures and Algorithms), CS 103 (Discrete Mathematics for CS), Math 51 (Linear Algebra and Multivariable Calculus). Planned: CS 161 (Design and Analysis of Algorithms), CS 107 (Computer Organization and Systems), CS 111 (Operating Systems Principles), CS 109 (Probability for CS).
High School Graduate, Lynbrook High School 2018-2022
Valedictorian, GPA: 4.0/4.0, SAT: 1590/1600, National Merit Finalist (Top 1% in US).

SKILLS

Coding Languages Python, C++, Java, HTML, \LaTeX
Algorithms Graph theory (e.g. DFS/BFS, Dijkstra/Bellman-Ford, MSTs), Dynamic Programming (e.g. Knapsack, Bitmask), Data Structures (e.g. trees, sets, maps, DSUs)
Technologies Eclipse, Git, GitHub, IntelliJ, Jupyter, Visual Studio Code, Unix.

AWARDS AND ACCOLADES

International Physics Olympiad, Team USA (**Top 5 in US**), Gold Medal [↗](#) 2021
International Olympiad in Astronomy and Astrophysics, Team USA (**1st in US**), 2x Gold Medal [↗](#) 2020, 2021
USA Computing Olympiad (USACO) Gold Competitor 2019
Regeneron Science Talent Search (STS) Scholar [↗](#) 2022
National Science Bowl Champion, Captain [↗](#) 2022

EXPERIENCE

Lead Researcher studying Fast Radio Bursts (FRBs) at Stanford University June 2020 - August 2022

- Developed Python package to perform Efron-Petrosian statistical analysis on truncated data, generate simulated data to match existing distributions, and provide error margins on extracted parameters.
- Advisor: Professor Petrosian, Stanford University
- Named Regeneron Science Talent Search Scholar [↗](#)

US Physics Team Member June 2021 - August 2021

- One of five representatives of the United States in the International Physics Olympiad held in Lithuania.
- Won a Gold Medal for the United States. [↗](#)

Research Intern at the University of California, Santa Cruz June 2020 - August 2021

- Performed 3D modeling of galactic morphologies of substructural features and stellar halo simulations in Python to find key trends between velocity and spatial distributions and accretion history.
- Advisor: Professor Raja Guhathakurta, UC Santa Cruz
- Publications in the American Astronomical Society, [↗](#), American Physical Society Far West Section [↗](#)

Research Intern at the University of California, Santa Cruz June 2019 - August 2019

- Visualized luminosity-time relationships and simulated gravitational and tidal interactions in tidal disruption events in Python; performed probability modeling of feasibility of an optical survey for disruption events.
- Advisors: Vivian Tang, Professor Piero Madau, Professor Raja Guhathakurta, UC Santa Cruz
- Publications in the American Astronomical Society [↗](#), American Physical Society Far West Section (Best High School Poster for 2019) [↗](#)