WILLIAM HUANG

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EDUCATION

BS in Computer Science & Physics, Stanford University 2022-present

High School Graduate, Lynbrook High School 2018-2022
Valedictorian, GPA: 4.0/4.0, SAT: 1590/1600, National Merit Finalist.

SKILLS

Coding Languages	Python, Java, C++, R, SQL, HTML, Javascript, LaTeX
Algorithms	Graph theory (e.g. DFS/BFS, Dijkstra/Bellman-Ford, MSTs), Dynammic Programming (e.g. Knapsack, Bitmask), Data Structures (e.g. trees, sets, maps, DSUs)
Machine Learning	Tensorflow, Keras, Scikit-Learn, Microsoft Azure

AWARDS AND ACCOLADES

Regeneron Science Talent Search Scholar 2022

National Science Bowl Champion, Captain of Lynbrook High School Team 2022

International Physics Olympiad, Team USA, Gold Medal 2021

International Olympiad in Astronomy and Astrophysics, Team USA, 2x Gold Medal 2020, 2021

RESEARCH

An Investigation of the Formation of Fast Radio Bursts 2020-2022
Investigated Fast Radio Bursts (FRBs), the elusive and eccentric bright flashes of radio energy in space that last for milliseconds. A two-pronged approach involving statistical analysis of the FRB formation rate evolution and energy and model building of FRBs was used to extract information about its formation mechanism.

- Advisor: Professor Petrosian, Stanford University
- Named Regeneron Science Talent Search Scholar

Galaxy Formation Simulations to Study Accretion History of the Milky Way 2020-2021
Conducted research on the amount and morphologies of substructural features, which help determine the accretion history of the Milky Way. Handled Hubble, Gaia, and Keck telescope data and Bullock and Johnston (2005) stellar halo simulations and found key trends between velocity and spatial distributions and accretion history.

- Advisors: Miranda Apfel and Professor Raja Guhathakurta, UC Santa Cruz
- *Publications:*
  American Astronomical Society
  American Physical Society Far West Section

Looking for Tidal Disruption Events in Virgo's Globular Clusters 2019
Conducted research on the theoretical rate of gravitational star interactions in globular clusters with intermediate mass black holes. Through physical simulations and analysis of models, determined key variables involved with the probability of disruption and the feasibility of an optical survey to probe for disruption events.

- Advisors: Vivian Tang, Professor Piero Madau, Professor Raja Guhathakurta, UC Santa Cruz
- *Publications:*
  American Astronomical Society
  Americal Physical Society Far West Section, awarded Best High School Poster for 2019