Jacob H. Nie

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Education

University of California, Santa Barbara, B.S. Physics (expected) 2020 – 2024

Monta Vista High School, Cupertino, CA 2016 – 2020

Selected Academic Honors

Rudolf Ortvay Int'l. Competition in Physics, Second Prize November 2019
- Two week long online competition hosted by the Eotvos University in Budapest.
- Received second prize internationally among college students while competing as a high school senior; top score among first year undergraduates and below

USA Physics Olympiad, Gold Medalist, National Camp Attendee June 2019
- The top 20 scorers nationally on the USAPhO are invited to this rigorous ten-day camp at the University of Maryland College Park, which selects the team for the International Physics Olympiad through written examinations and laboratory work.

Princeton University Physics Competition, Gold Medalist November 2018
- Awarded 7th place and a gold medal in this national competition hosted by college students for high schoolers.

Skills

Proficient in Python 3 and LaTeX
Familiar with C++ and MATLAB and Mathematica

Coursework

Personal Self Study 2017 – present

Physics:
- *Physics* by Resnick, Halliday, and Krane
- *Introduction to Classical Mechanics* by Morin
- *Electricity and Magnetism* by Purcell
- (in progress) *Vibrations and Waves* by French
- (in progress) *Principles of Quantum Mechanics* by Shankar

Mathematics:
- MIT OCW 18.02 - Multivariable Calculus
- *Div, Grad, Curl* by Schey
- (in progress) *Introduction to Linear Algebra* by Strang
- (in progress) *Elementary Differential Equations with Boundary Value Problems* by Edwards and Penney

Programming:
- MIT OCW 6.0001/2 - Introduction to Computer Science and Programming in Python
- MIT OCW 6.096 - Introduction to C++

Work Experience

Private Physics and Mathematics Tutoring, Cupertino, CA 2017 – 2019
- Prepared middle and high school students for both school math/physics and competitive math/physics.