# 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

June 2019

# Selected Academic Honors

# Rudolf Ortvay Int'l. Competition in Physics, Second Prize

November 2019

- $\bullet\,$  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

• Scored in the top 20 nationally (unranked) to receive an invitation to the national training camp at the University of Maryland, which selects the team for the International Physics Olympiad through written examinations and laboratory work.

## Princeton University Physics Competition, Gold Medalist

• Awarded 7th place and a gold medal in this national competition hosted by Princeton students for high school students.

#### Coursework

## Personal Self Study

2017 - present

November 2018

#### Physics:

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

#### Mathematics:

- Div, Grad, Curl by Schey
- Introduction to Linear Algebra by Strang
- Elementary Differential Equations with Boundary Value Problems by Edwards and Penney
- (in progress) Mathematical Methods for Physics and Engineering by Riley, Hobson, and Bence

# 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.

### Skills

Proficient in Python 3 and LATEX

Familiar with MATLAB, Mathematica, C++, Linux, and Arduino