

Nathan C. Song

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Education

University of California, Berkeley

Berkeley, CA

B.A. Physics, B.A. Mathematics, GPA: 3.64

Grad. May 2025 (est.)

- Relevant Coursework: **Physics 105** (Analytic Mechanics), **Math 118** (Fourier), **Math 113** (Abstract Algebra), **Math 110** (Linear Algebra), **Math 55** (Discrete Mathematics) **Math W128A** (Numerical Analysis), **Physics 89** (Intro Mathematical Physics), **Physics 5A, 5B, 5BL, 5C, 5CL** (Intro Physics Series)

Work Experience

Student Ambassador *marketGOATS*

November 2022- January 2023

Course Reader *ISF 10*

September 2022- December 2022

IMPACT-NG REU *Undergraduate Researcher*

June 2022 – August 2022

- Created MEMs (Microelectromechanical) structures that latched onto fiber meshes. Electrically characterized said “grippers” across different operating conditions and proved their potential to make fully flexible circuits.
- Presented at NNCI Nano + Additive Manufacturing Summit. Submitted paper to Journal of Micro-Bio Robotics; Currently writing paper for JIEE-FLEPS
- *Relevant Skills:* Photolithography, SEM, Mask Design, Xenon Etching, Metal Deposition, Plasma cleaning, Wet etching, Parylene deposition, NEXUS (See U. of L), Probe station

Ultrafast NanoOptics Group *Undergraduate Researcher*

September 2021- May 2022

- Investigated novel properties of 2D materials with optical spectroscopy. Proficient in AFM, photolithography, PC-film manufacturing and exfoliation.

Fluxergy *Junior Web Developer*

April 2021 – August 2022

- Created current Fluxergy.com website while communicating with CEO/Advisory Board. Captured long-term corporate vision and optimized user experience.
- Used SEO data to optimize site search. Doubled website loading speed and streamlined customer integration with ActiveCampaign. Created guidelines for cleaner site maintenance and UI choices.

Skills

Languages: Python, Matlab, HTML+CSS

Tools and Frameworks: Pandas, NumPy, Seaborn, OpenCV, Matplotlib

Activities

STEAM For All: Outreach program for schools in Orange County / surrounding districts. Wrote 200+ AMC-style problems for biannual tournaments attended by ~250 middle school students. Lead monthly workshops for ~16 students on competitive math.

PacificSTEM: Outreach program for high schools in La Mirada / Diamond Bar. Lead student group to find speakers for annual STEM networking event from JPL, Mars Food, and CrowdStrike. Shifted event to Zoom format within a month (COVID-19), attendance ~50 high school students.

Honors and Awards

The Leadership Award (UC Berkeley), President’s Gold Volunteer Service Award (X2), National Merit Semifinalist, AIME