

Jack Wesley Lipson

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Education

University of California, Berkeley

Spring 2026

B.A. with Honors in Pure Math, B.A. in Physics

Graduate Coursework: Measure theory (A), functional analysis (A- AND TBD), algebraic topology (the only A+), differential topology (A), symplectic geometry (A), 'quantitative' symplectic geometry (A), Lie groups/algebras (A+), complex manifolds (TBD), number theory (TBD), non-commutative geometry (TBD), deep learning survey (TBD)

Portola High School, Irvine, CA

Spring 2022

Graduated summa cum laude 1 year early.

Work Experience / Research

Scale AI, San Francisco

Summer 2025

Technical Advisor Intern - GenAI (paid, 20+ hrs/wk)

- Benchmarking for STEM research, biosecurity, and other projects.

University of California, Berkeley

Berkeley Math Circle Teaching Assistant (paid, 5 hrs/wk)

Fall 2025 - Present

- Train problem-solving skills of advanced 5th and 6th graders.

Math Department Teaching Assistant (paid, 25 hrs/wk)

Fall 2024 - Present

- Grade undergrad logic + differential metric geometry + algebraic topology (Fall '25)
- Grade honors complex analysis + abstract algebra (Spring '25) + linear algebra (Summer '25)
- Grade grad + undergrad differential geometry HW under Prof. Constantin Teleman (Fall '24)
- Write solutions to graduate differential geometry HW - (Fall '24)

Upper Division Math Department Tutor (paid, 20 hrs/wk)

Summer 2023 - Present

- Tutor drop-in for real + complex analysis, linear + abstract algebra.
- Create + facilitate 5 review sessions/semester in above classes, proof skills, and category theory.

Math/Physics Directed Reading Program (1-on-1 weekly with grad student)

All 2024

- Presented on "*Supersymmetric Quantum Mechanics and Representation Theory*" - Spring '24
- Finished Atiyah-Macdonald + Hartshorne - Summer '24 + some Milnor + Atiyah papers - Fall '24

Stanford University

Stanford University Mathematics Camp Instructional Assistant (paid, 30 hrs/wk)

Summer 2025

- Guided 10/11th graders in month-long algebraic topology research projects and coursework.

Stanford University Mathematics Camp Admissions Exam Reviewer (paid)

Spring 2024/2025

- Assessed high school applicants' math maturity via personal essays + grades + proof-based exam.

AwesomeMath

Summer Program Teaching Assistant (paid, 40 hrs/wk)

Summer 2024 + Summer 2025

- Led discussion, held office hours, and graded HW in 11 classes for very advanced high schoolers.
- Courses taught competitive math skills in algebra, combinatorics, number theory, and geometry.

United States Air Force

Fall 2022 - Spring 2024

Reserve Officers' Training Corps Cadet (paid)

- AFGSC Strategic Nuclear Deterrence Distinguished Graduate.

Summer 2023

- American Legion Cathay Post AFROTC Scholarship (only freshman recipient).

Spring 2023

Skills / Interests

Technical: microfabrication, LaTeX, Python, C++, Docker, git, MATLAB, GIS, Fusion 360, Solidworks

Languages: Mandarin Chinese

Interests: Cooking, film, seal carving, woodworking