

Eli Krasnoff

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EDUCATION

Stanford University

B.S., Chemical Engineering

GPA: 3.95 | Activities: ASES Bootcamp (30 from 500+), ChemE Car, Freshman Service Liaison (1/107 dorm members)

Stanford, CA

June 2029

EXPERIENCE & RESEARCH

Bao Group, Stanford University

Undergraduate Researcher (PI: Prof. Zhenan Bao)

Stanford, CA

6/26 – Present

- Developing a wet-spun, muscle-like two-way shape-memory fiber with integrated EGaIn liquid metal that performs up to 27,000x better than the next best comparable technology; joined via a funded Stanford MatSci REU
- Characterize mechanical, shape-memory, and electrical properties via DMA, DSC, SEM, X-ray CT, and Instron

Stanford University School of Engineering

Independent Researcher, BIOME Grant Recipient

Stanford, CA

4/26 – Present

- Awarded ~\$4,000 to develop mycelium as a scalable platform for tissue-specific ECM scaffolds; independently secured lab space, materials, and collaborators; genetically modifying *A. oryzae* as proof of concept

The Boiling River Project

Field Intern

The Boiling River, Perú

6/25 – 8/25

- 1 of 3 interns on a 40-member Explorers Club Flag & Rolex Watch Expedition; profiled geothermal biodiversity
- Produced a legal strategy brief advising the expedition leader on pathways to secure formal protection of the river

Congruent Ventures

Research Intern

Remote

7/24 – 12/24

- Wrote an investment thesis and techno-economic review of green polymers (furan-based, bio-derived monomers)

Garcia Scholars Program, Stony Brook University

Student Scholar

Stony Brook, NY

6/24 – 3/25

- Fabricated spin-coated polystyrene thin films and led development and feature analysis of ML models to explain how bidispersity affects film thickness; second author in *MRS Communications* (2026) and presented at MRS & APS (oral)
- Identified the active ingredient in a thermoreversible endodontic drug-delivery hydrogel (FTIR, Raman) and led antibacterial assays; presented at MRS (poster)

Independent Research Projects

Targeted Drug Delivery for Lymphoma

12/24 – 5/25

- Co-led a funded project delivering DEX-HA via Fmoc-FF hydrogels; cut lymphoma cell viability (MTT assay)

Mycelium as a Bio-scaffold for Tissue Engineering

12/23 – 3/24

- Characterized *P. nameko* and *L. edodes* scaffolds (SEM, FTIR, vapor absorption); Connecticut Science Fair Finalist

Frequency-Based Mosquito Repelling Device

2020 – 2023

- Designed and tested an acoustic repellent prototype from ages 13–16; filed a patent application (US 17/226,876)

HONORS & AWARDS

Morehead-Cain Scholarship Recipient (<3% of nominees selected internationally)

2025

Seller's Prize (given to 4 seniors with the biggest impact on the school from the 180-student grad. class)

2025

Founder's Prize (given to 13 juniors for academic achievement and most impact on community)

2024

PUBLICATIONS

Ren, B., **Krasnoff, E.**, et al. (2026). Investigating the impact of bidispersity on spin-coated polystyrene thin films using machine learning. *MRS Communications*, 16(4), 972–983.

Bhat, D., **Krasnoff, E.**, & Yung, H. H. J. (2025). Investigating the ethics of machine learning-aided treatment planning and early detection of neurodegenerative diseases. *J. Ethics in Science & Technological Innovations*, III, 88–102.

SKILLS

Lab: wet-spinning; spin-coating; DMA, DSC, TGA, Instron, SEM, X-ray CT, FTIR, Raman, UV-vis; cell culture & *in vitro* assays; fungal genetic engineering; hydrogels

Computational: Python (NumPy, scikit-learn, matplotlib) for data analysis & ML; MATLAB; OriginPro; LaTeX