

ETHAN LEE

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ethanlee.xyz

EDUCATION

Columbia University, School of Engineering & Applied Sciences, New York, New York (Expected graduation June 2028)

- BSE in Materials Science & Engineering; Minors: Biomedical Engineering, History
- Cumulative GPA: 3.60/4.00 | SEAS Dean's List (F24, S25)

The Haverford School, Haverford, PA (Graduated June 2024)

- Selected honors: Cum Laude Society election, Captain's Award, University of Pennsylvania Book Award, Rhode Island School of Design Award, Excellence in Science and Mathematics Award

RESEARCH EXPERIENCE

Cellular Engineering Laboratory, Columbia SEAS, Department of Biomedical Engineering (May 2025 - Present)

Research Assistant; Advisor: Clark Hung, Ph.D. | Derek Ning, MSE

- Developed cellular and biomaterial engineering solutions to osteoarthritis and other degenerative diseases in the knee.
- Applied quantitative and qualitative wet-lab and cell culture techniques to evaluate cell behavior, morphology, and viability on biomaterial scaffolds.
- Submitted and presented research at Undergraduate Research Symposium.

Shu Yang Group, UPenn SEAS, Department of Materials Science & Engineering (June 2023 - August 2023)

Research Assistant; Advisor: Shu Yang, Ph.D. | Yinding Chi, Ph.D.

- Synthesized and characterized liquid crystal elastomers to study their thermomechanical behavior under external stimuli such as light and heat.
- Composed a research paper and presented research at Summer Research Symposium.

Laboratory for Structural, Physiologic, and Functional Imaging, Penn Medicine (June 2022 - August 2022)

Research Assistant; Advisor: Chamith Rajapakse, Ph.D.

- Developed machine learning models in radiology for automating image analysis of lumbar MRIs.
- Processed and analyzed large training datasets to optimize machine learning model performance and feature selection.

WORK EXPERIENCE

Assistant Luthier, Forte3D (May 2024 - August 2024)

- Supported instrument construction, collaborated on design and prototyping of 3D-printed instrument components.
- Maintained and calibrated workshop tools to optimize fabrication precision and efficiency.

Coach/Counselor, ESF summer Camps (July 2024 - August 2024)

- Supervised and mentored campers through athletic and team-based activities, focusing on squash.

EXTRACURRICULAR ACTIVITIES

Columbia Lightweight Rowing (September 2024 - Present)

- Competed at the D1 level as a member of Columbia University's lightweight rowing team, raced at the IRA.
- Managed and maintained erg room equipment to ensure optimal functionality and training efficiency.
- Represented team at Student Athlete Athletic Council communicating team perspectives to athlete-wide audience. Focussed on athlete physical and mental wellness.

StreetSquash Volunteer (January 2026 - Present)

- Delivered individualized academic tutoring and mentorship to underserved middle-school students through StreetSquash, focusing on developing productive habits in a student-athlete environment.

SKILLS/INTERESTS

Skills: Biological and chemical wet-lab techniques, data analysis, woodworking & fabrication, 3D printing, Adobe suite, Google Workspace, working knowledge of Java and Fusion360 | Leadership and teamwork, communication, project management, technical writing.

Interests: Woodworking, guitar, squash, gear head, live music, running/endurance sports, medicine