

# ETHAN LEE

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## 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. Focused 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

**Website/Portfolio:** ethanlee.xyz

**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