Robin Hur

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Education

University of Virginia, School of Engineering and Applied Science **Charlottesville, VA | 2024–2027**
B.S in Mechanical Engineering, GPA: 3.72

- **Relevant coursework:** Statics, Strength of Materials, Thermodynamics, Fluid Mechanics, Thermal Fluids, Material Science

Garnet Valley High School **Glen Mills, PA | 2020-2024**
Class of 2024, GPA: 4.31/4.50

Skills

- **Design & Analysis:** SOLIDWORKS (CSWA), Autodesk Fusion, Bambu Studio, GD&T, Python, Microsoft Office, FEA, Fabrication & Rapid Prototyping, Technical Documentation
- **Languages:** English (native), Korean (fluent), French (intermediate)

Experience

Undergraduate Research Assistant, *UVA Dept. of Chemical Engineering* **Aug 2024 – Nov 2025**

- Conduct molecular dynamics simulations using AMBER for hydrogel research and automate analysis workflows in Python
- Created 100+ simulation setup files while initiating a more efficient data organization workflow that improved consistency across studies
- Generate publication-quality data visualizations and contribute written content for a research manuscript publication currently in review

Mechatronics and Robotics Society, *Mechanical Subteam* **Aug 2025 – Present**

- Working towards constructing a robot for the NASA Lunabotics competition
- Support design of a Lunabotics-style robot capable of manipulating lunar regolith using CAD tools
- Spearheading research efforts on vibration frequency impacts in granular material flow to inform concept development for the excavation subsystem

Bridge Program Counselor, *UVA School of Engineering and Applied Sciences* **Jul – Aug 2025**

- Mentored 38 incoming first-year engineering students as part of a team of 6 counselors during a 3.5-week residential program
- Served as a Resident Advisor, fostering community, inclusion, and academic support for first-year students
- Aided in instruction and tutoring for a pre-calculus course, supporting students' academic preparation

Projects

Computational Peptide Simulation, *UVA Biomaterials Research Symposium 2025* **Jul 2025**

- Presented a research poster at a day-long biomaterials symposium and engaged in faculty-led sessions introducing current lab research topics
- Networked with graduate students and researchers, receiving informational feedback guided towards potential future directions of lab

Clean My Water, *Project Consultant* **Jan – May 2025**

- Led a collaborative team developing a portable, low-cost water filtration device targeting microbial and sediment contaminants
- Utilized CAD, woodworking, 3D printing, and rapid prototyping to develop functional prototypes
- Consulted peers, professors, and academic sources to guide low fidelity iterations
- Delivered final technical report and poster presentation at an annual engineering showcase