

# Robin Hur

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## Education

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### University of Virginia, School of Engineering and Applied Science

B.S in Mechanical Engineering, GPA: 3.72

Charlottesville, VA | 2024–2027

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

### Garnet Valley High School

Class of 2024, GPA: 4.31/4.50

Glen Mills, PA | 2020-2024

## Skills

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- **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

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### 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
- Initiated 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

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### 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
- Delivered final technical report and poster presentation at an annual engineering showcase

### Potential Energy Propulsion Racer, Project Member

Nov 2025

- Collaborated on an engineering team to design and build a 3D-printed, potential-energy-powered racing vehicle
- Applied SolidWorks CAD modeling, mechanical transmission design, and rapid prototyping to develop and refine vehicle components
- Delivered final technical report and a comprehensive inventory of SolidWorks CAD parts, assemblies, and design files