

Alex Liu

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Education

Rhode Island School of Design · *(September 2021- June 2025)*

Bachelor of Fine Arts: Industrial Design

Experience

President of RISD Astro · *(July 2023- present)*

- Manages meetings, formatting club organization, facilitating engineering and design projects
- Leading teams competing in NASA's Human Exploration Rover Challenge and Spacesuit User Interface Technologies for Students
- Headed new graphics and rebranding to solidify club identity

Designer and Fabricator at RISD Astro · *(January 2021- present)*

- Fabricated a two person, belt-driven rover out of carbon fiber composites, steel, and aluminum weighing 94 pounds
- Designed carbon fiber epoxy composite parts as well as their fiberglass and foam molds
- Engineered the steering system through mockups utilizing additive manufacturing
- CAD modeled the steering and drivetrain subsystems
- Primary pilot of the rover at NASA's HERC competition for 2022, 2023, 2024
- Won the "Featherweight Award" by designing the lightest rover, placed 5th in the college division

Intern at Iron Mountain Forge & Furniture · *(July 2023- September 2023)*

- Fabricated railings and fixtures for client
- Welded steel frame products

CAD Lab Technician · *(December 2022- present)*

- Manages the CAD Lab at the RISD Industrial Design department
- Worked with over 300 students on 3D printed and laser cut projects presented in RISD critiques and installations
- Instructed students on SolidWorks and Illustrator

Metal Shop Monitor · *(September 2023- December 2023)*

- Managed the Metal Shop at the RISD Industrial Design department
- Oversaw the use and maintenance of industrial machinery
- Guided over 100 students in manufacturing techniques out of aluminum, tin, and steel

Projects

Brown University Space Systems Engineering Course · *(January 2024- present)*

- Engineering a system that provides resistance in spacecraft to prevent astronaut muscle loss
- Designing the exit mechanism for chamber

Brown University Space Horizons Conference Lead Designer · *(December 2024- present)*

- Headed the graphics for Professor Richard Fleeter's conference regarding sustainable celestial development
- Designed a set of graphics to be featured on websites, posters, and merchandise

Skills

- **Engineering:** Drafting, SolidWorks, Fusion 360, Keyshot,
- **Fabrication:** 3D printing, MIG welding, laser cutting, mold-making, carbon fiber epoxy, fiberglass epoxy
- **Programming:** C#, C++, Python, Java, JavaScript
- **Digital:** Photoshop, Illustrator, Lightroom, Premiere Pro, InDesign, Microsoft Office, Excel, Powerpoint, Word, graphic design, data analysis
- **Languages:** English, German

Personal

- **Swimming:** Competitive swimmer since age five; currently swimming for Brown Club Swimming
- **Valorant (competitive e-sports video games):** Stressful and emotional training for tactical coordination and teamwork; rank Diamond two peak, Duelist and Initiator roles
- **Current Hobby:** Repairing, repurposing, and recycling old ThinkPads; started by refurbishing my mom's X220
- **Current Life Goals:** Send anything to space, live out of a camper van for one year
- **Soft Skills:** Deconfliction, ability to perform and adapt in high-stress environ., teamwork, leadership, ability to learn