Kyle Li

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EDUCATION

Rice University | Bachelor of Sciences in Mechanical Engineering — Expected Graduation Date: May 2028

EXPERIENCE

Oshman Engineering Design Kitchen — January 2025 - Present

Lab Assistant|Rice University

- Maintained a safe and efficient workspace by cleaning, organizing tools, managing inventory, and handling waste disposal.
- Delivered technical support for dozens of students, assisting with equipment operation, and providing feedback on design concepts.
- Led FabShop workshops to train students in foundational prototyping techniques, such as foundational CAD.
- Assisted in open houses, demonstrations, and tours, fostering engagement with engineering design.

Bioheating — September 2024 - December 2024

Team Engneer|Rice University

- Applied the engineering design process to create a marine heat wave simulator for client testing.
- Designed and built a PVC framework and mounting system for electronic components.
- Engineered a custom mounting system by modifying PVC pipes to securely anchor onto tubs, ensuring stability and precise placement.
- Created detailed 3D CAD models in Onshape for prototyping and future design improvements.
- Authored a technical design report documenting iterations, results, and recommendations.
    - https://docs.google.com/document/d/1GhaJJIGGhFYqtvscX5CpqrqQIT8yeKhM/edit?usp=sharing&ouid=107809462342474633587&rtpof=true&sd=true

Sector Microwave Industries — June 2024 - August 2024

Intern|Deer Park, NY

- Assembled and validated complex electrical subassemblies for Navy and aerospace applications, ensuring compliance with strict engineering specifications and industry standards.
- Applied manual and automated wire processing techniques to cut, strip, and prepare hundreds of wires with high precision and repeatability.
- Executed soldering and tin-dipping operations to create reliable electrical connections, integrating prepared wires into subassemblies.
- Conducted diagnostic testing on motors using multimeters and megger meters, analyzing performance data to confirm safety, reliability, and operational compliance prior to deployment.

PROJECTS

Design and Development of a Voice-Activated System Inspired by *Honkai Star Rail*

Developer

- Designed and modeled a 3D coin in Onshape, converting reference images from *Honkai Star Rail* into a precise CAD model for fabrication.
    - https://cad.onshape.com/documents/68cae1c153a8f1044e0ee9aa/w/26ee0ce0225f7849c730a648/e/473dc597dcec811c6595c1dc?renderMode=0&uiState=67f41c0b99fde447b375c459
- Developed a control system using Python and Arduino to program servo motors, combining electrical and software engineering skills.
- Engineered a dual-mode actuation mechanism, incorporating voice-activated triggers and timed alarms to enable automated and user-interactive operation.

Design and Construction of a Gear-Driven Orrery with Vertical Motion Mechanism

Developer

- Designed and fabricated a mechanical orrery-inspired system featuring a rotating planetary body and vertically moving rocket to demonstrate multi-axis motion.
- Engineered a multi-layered gear and crankshaft mechanism, achieving coordinated rotational and vertical movement with precise mechanical timing.
- Utilized laser cutting to fabricate precise components, improving assembly accuracy.
- Documented iterative design, CAD integration, and testing results in a technical blog post.
    - https://engi210.blogs.rice.edu/2025/03/10/kyle-inigos-midterm-non-est-ad-astra-mollis-e-terris-via/

Light-Up Acrylic Stand

Developer

- Designed and fabricated a dual-lit acrylic stand featuring both bottom and back lighting for enhanced visual effect.
- Modeled and CADed the acrylic and electronics holder in Onshape, ensuring precise fit and structural stability.
    - https://cad.onshape.com/documents/ed47a76c77a2030efc37f564/w/e9dbad9bb9afbecb39fa54e9/e/7cf6596737c2cc896459e21f?renderMode=0&uiState=67f41cc250a68d742746e694
- Vectorized and prepared artwork from an official Sakura Miku illustration using Adobe Illustrator, then engraved and cut acrylic components with an Epilog Laser Pro.
- Programmed an Arduino-controlled lighting system, operating two WS2812B LED strips for dynamic, synchronized lighting effects.
- Developed a multimedia-to-RGB mapping system, converting YouTube audio into RGB lighting values via a user-input interface.
- Implemented a video-title-to-RGB scraping tool, extracting average RGB values from the first image search result of a given YouTube video title for creative visual effects.

CERTIFICATIONS

- Certified SolidWorks Associate (CSWA) – Dassault Systèmes (March 2025) — March 2025

List:

1. Sector
2. Engi 120, engi design
3. Research
4. Prosthetic work (school yr + summer)
5. SEED / iSEED
6. Shp now in skill ssection
7. Chaus?

Clubs

8. Car
9. Robo-r&d
10. Eclipse
11. wind
12. Biotech
13. Robo-rover
14. Airplane
15. Neuro

T3: (car), r&d, wind-blades, rover, wind-gen, eclipse, neuro, airplane

Freshman yr:

1. Sector
2. 9th grade math → Engi 120, engi 200
3. Sci Oly → Eclipse / other club
4. Hunter Robo → Rice Robo / other club
5. Maybe third club?
6. Chaus
7. SEED / iSEED over summer
8. Shp?

Soph:

1. Sector <- remove first
2. Engi 120, engi 200, other engi design
3. Eclipse / other
4. Rice Robo / other
5. Research hopefully /school yr job
6. SEED / iSEED
7. If i get promoted at chaus <-remove second
8. Summer prosthetic job?
9. Help at oedk?

Junior:

1. Engi 120, engi 200, other engi design
2. Eclipse / other
3. Rice Robo / other
4. Research hopefully / school yr job
5. SEED / iSEED
6. Summer prosthetic job?
7. Other summer job
8. Help at oedk

1. Sector
2. Eclipse
3. Aven
4. Engi120
5. Acrylic
6. oedk