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 and organized workspaces by cleaning, managing inventory, and emptying waste bins to ensure a safe and efficient environment.
- Provided technical support for students, guiding them in equipment operation and offering feedback on design ideas.
- Led FabShop workshops to teach students foundational prototyping techniques and enhance their hands-on fabrication skills.
- Supported OEDK events and tours, helping to facilitate open houses, meetings, and demonstrations.

Bioheating   September 2024 - December 2024
Team Member | Rice University
- Engineered a solution to the problem posed by our client via going through the engineering design process.
- Designed and built a marine heat wave simulator using a PVC framework to support and position electronic components.
- Engineered a secure mounting system by modifying PVC pipes to anchor onto provided tubs, ensuring stability and optimal component placement.
- Developed 3D models in Onshape to prototype and refine future configurations for improved functionality.
- Documented all prototypes and tests as well as other relevant information in a comprehensive design solution report.
  - 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 complex subassemblies for diverse industries, including Navy and space sectors, demonstrating adaptability and technical expertise.
- Processed hundreds of wires through manual and automated cutting and stripping techniques to ensure precision and reliability.
- Tinned hundreds of wires using both soldering irons and dipping in liquid metal and successfully integrated them to existing systems.
- Conducted electrical testing on motors using multimeters and megger meters, verifying compliance with operational standards before delivery.

PROJECTS

Design and Development of a Voice-Activated System Inspired by *Honkai Star Rail*   November 2024 - Present
Developer
- Created a 3D coin model in OnShape based on reference images from *Honkai Star Rail*.
  - https://cad.onshape.com/documents/68cae1c153a8f1044e0ee9aa/w/26ee0ce0225f7849c730a648/e/473dc597dcec811c6595c1dc?renderMode=0&uiState=67f41c0b99fde447b375c459
- Designed a contraption to hold the electronics using OnShape.
- Developed and programmed a Python and Arduino-based control system to trigger servo motors.
- Engineered a dual-mode system, featuring a voice-activated trigger and a timed alarm function for automated execution.

Design and Construction of a Gear-Driven Orrery with Vertical Motion Mechanism   February 2025 - March 2025
Developer
- Designed and built a mechanical orrery-inspired system featuring a rotating planetary body and a vertically moving rocket.
- Developed a multi-layered gear system to achieve rotational and vertical motion using a crankshaft mechanism.
- Utilized laser cutting to fabricate precise components, improving assembly accuracy.
- Refined the final assembly through sanding, staining, and finishing techniques for aesthetic and functional improvements.
- Documented the engineering process and design iterations in a detailed blog post, showcasing problem-solving skills.
  - https://engi210.blogs.rice.edu/2025/03/10/kyle-inigos-midterm-non-est-ad-astra-mollis-e-terris-via/

Light-Up Acrylic Stand   Dec 2024 – Mar 2025
Developer
- Designed and fabricated a dual-lit acrylic stand with both bottom and back lighting.
- CADed the holder for acrylic and electronics using OnShape.
  - https://cad.onshape.com/documents/ed47a76c77a2030efc37f564/w/e9dbad9bb9afbecb39fa54e9/e/7cf6596737c2cc896459e21f?renderMode=0&uiState=67f41cc250a68d742746e694
- Traced and vectorized official a Sakura Miku illustration in Adobe Illustrator; engraved and cut acrylic using Epilog Laser Pro.
- Programmed an Arduino to control two separate WS2812B LED strips for dynamic lighting effects.

SKILLS
- Can understand basic Cantonese.
- Has used Canva, Python, R, Unreal Engine 5, Autodesk Inventor, LaTeX, Arduino, OnShape, Adobe Illustrator

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

AWARDS

Presidential Scholar Candidate   February 2024
- Awarded to approximately 6,000 seniors who scored phenomenally on either the SAT or the ACT.

Questbridge National College Match Finalist, Matched with Rice University   December 2023
- A full scholarship awarded to 2,242 applicants