Aaryan Kainth

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WORK EXPERIENCE

Walt Disney Imagineering R&D (sites.disney.com/waltdisneyimagineering) — Glendale, CA
Lab Associate — June 2025 – September 2025

- Designed and fabricated an integrated remote control box to control a next-generation aquatic performance robot using SolidWorks, laser cutting, FDM 3D printing, and sheet metal bending
- Designed and constructed parts, tooling, and testing equipment for said robot, including a pressure sensor mount, a boat, and a lift to get the robot in and out of the water; utilized speed rail, waterjet cutting, and SLS 3D printing
- Designed and constructed an electronic lightsaber themed ping-pong tournament trophy within 24 hours

Hawkes Lab (hawkeslab.com) — Goleta, CA
Undergraduate Research Assistant — May 2023 – Present

- First authored a paper detailing the design and fabrication of a mounted anchor launcher that allows unmanned extraterrestrial rovers to traverse soft-sand slopes; presented it at the International Conference for Robotics and Automation
- Designed the clutch mechanism used in the anchor launcher
- Learned effective experimental design to create a model for anchor launch distance using Excel and MATLAB
- Optimized anchor force to weight ratio over design iterations, improving it by over 400%

Plume Design, Inc. (plume.com) — Palo Alto, CA
Hardware Team Summer Intern — June 2021 – August 2021

- Wrote Python testing scripts to quantify performance of 3 different kinds of product antennas
- Engineered a basic dipole antenna for 5 GHz bandwidth
- Learned how to use iBwave antenna simulation software, and trained additional team members on how to use it
- Leveraged Python and Raspberry Pi to collect and interpret data for wall mounted fall-detection prototype

PROJECTS

One-Axis Automatic Tapping Robot — April 2024 – June 2024

- Designed a mechatronic system to measure the depth and width of a hole
- Worked with a team to design tooling to control a tap wrench with a motor

CD Jukebox — April 2025 – June 2025

- Wrote and tuned a PD controller in C++ to precisely drive the arm to within 2mm of target
- Designed a belt-driven lead screw system to adjust the linear position of a servo arm

BSA Troop 407 - Eagle Project — February 2022 – June 2022

- Led 9 volunteers over the course of 103 man hours to build 3 ADA-compliant accessible animal tables for a local petting zoo, allowing them to better serve visitors who use wheelchairs

EDUCATION

University of California, Santa Barbara — Goleta, CA
Bachelor of Science (B.S.) in Mechanical Engineering: 3.95 Cumulative GPA — Expected June 2026
Master of Science (M.S.) in Mechanical Engineering: Beginning June 2026 — Expected June 2027

SKILLS

Programming Languages: Python, MATLAB, C++
Manufacturing Skills: CAD, laser/waterjet cutting, 3D printing, mechanical design, rapid prototyping, soldering
Basic Proficiencies: Microsoft Office, Google Suite, LaTeX/Overleaf