Ethan Quan

Education

University of California, San Diego   **AUG. 2021 - Present**
Bachelor of Science; Mechanical Engineering (1st year)   *(Expected Graduation Date: June 2025)*

Galileo Academy of Science and Technology   **JAN. 2018 – JUN. 2021**
4.18 GPA (weighted, cumulative)

UCLA Summer Engineering Institute   **JUL. 2019 – AUG. 2019**
ENGR 96A – Introduction to Engineering Design (Rocketry)
- Completed college-level course on the modeling, design, and construction of high-powered rockets.
- Learned basics of rocket flight dynamics, propulsion, and recovery; simulation (MATLAB); CAD (SolidWorks).
- Successfully launched and recovered a fully custom high-powered rocket to 2,500 ft. with onboard avionics and camera.

Experience

Galileo Robotics (FIRST Robotics Competition Team 4669)   **AUG. 2018 – JUN. 2021**
Captain, Lead Designer
- 2021 Innovation Challenge Semi-Finalist.
- Created 3D designs for Galileo Robotics and competed in the FIRST Robotics Competition.
- Prototyped and fabricated parts out of HDPE, PLA, and aluminum using CNC and 3D printing technologies.
- Taught parametric 3D modeling (Autodesk Inventor), CNC, and 3D printing skills to recruits.
- Coordinated between subteams to ensure cohesive workflow; spearheaded several projects.

Galileo Rocketry (American Rocketry Competition Team 20-6661)   **NOV. 2019 – JUN. 2021**
Founder, Captain
- Founded Galileo Rocketry as a team in the American Rocketry Competition (TARC).
- Taught basic aerodynamic and rocketry concepts to nine new members of the rocketry team.
- Developed a custom rocket design using OpenRocket to reach competition goals and criteria.
- Built a solid-motor powered rocket capable of altitude calibration and reaching 800 feet while carrying an egg.

Galileo Cross Country   **SEP. 2018 – JUN. 2021**
Manager, Runner
- Maintained the roster and assisted with team logistics, city-wide races, team events, fundraising, and school-wide events.
- Long distance running and competition throughout the 2018 season.

Awards

UCSD Chancellor's Scholar ($20,000 scholarship for academic achievement)   **MAY 2021**
Galileo Academy Honor Roll (For attaining a GPA higher than 3.5)   **JUN 2021**

Skills

Parametric 3D Modeling and Design | Autodesk Inventor, Fusion360
- Proficient in Autodesk Inventor and Autodesk Fusion 360; moderate knowledge of SolidWorks.
- Create parametric 3D models for drafting, display, or manufacturing by CNC or 3D printing.

3D Printing | Fused Deposition Modeling Printers
- Prepare, print, and post-process 3D printed objects using FDM printing technology.
- Proficient in the use of slicers, Ultimaker Cura and PrusaSlicer; and 3D printers, Prusa i3 MK3S MMU2 and Creality Ender-3.

CNC Machining
- Prepare, cut, and post-process parts for 3-axis CNC milling (plywood, MDF, HDPE, polycarbonate, and aluminum parts).

Parts Machining | Power Tools | Java, Python, MATLAB (basic knowledge)