Ethan Quan

Education

Galileo Academy of Science and Technology — San Francisco, CA

Current Senior; Class of 2021 — *January 2018 - Present*

- 4.18 GPA (weighted, cumulative)

UCLA Summer Engineering Institute

ENGR 96A – Introduction to Engineering Design (Credited Course) — *July 2019 – August 2019*

- Completed college-level course on the modeling, design, and construction of high-powered rockets.
- Learned basics of rocket flight dynamics, propulsion, and recovery.
- Custom rocket design and simulation (MATLAB); created 3D schematic using CAD (SolidWorks).
- Successfully launched and recovered a fully custom high-powered rocket to 2,500 ft. w/ onboard avionics and camera.

Extracurricular Activities

Galileo Robotics (FIRST Robotics Team 4669)

Captain, Lead Designer — *August 2018 – Present*

- 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 (TARC Team 20-6661)

Founder, Captain — *November 2019 – Present*

- 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

Assistant Manager — *September 2018 – Present*

- Maintained a roster of 35 runners, including keeping track of mileage and inventory.
- Assisted with city-wide cross-country race which included timekeeping, registration, and collection of runner tags.
- Assisted with planning and coordinating team events, fundraising, and school-wide events.

Skills

Parametric 3D Modeling and Design (Autodesk Inventor)

- Proficient in Autodesk Inventor and Autodesk 123D Design; moderate knowledge of SolidWorks.
- Create parametric 3D models for drafting, display, or manufacturing by CNC or 3D printing.

CNC Machining

- Prepare, cut, and post-process parts for 3-axis CNC milling.
- Proficient in the cutting parts out of plywood, MDF, HDPE, polycarbonate, and aluminum.

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.

Parts Machining & Power Tools

- Proficient in the use of various equipment, such as arbor press, drill press, Dremel, belt sander, drill, and jigsaw.

Programming

- Basic knowledge of Java, Python, and MATLAB.