Michael J. Gray

Boulder, CO 80301 | 818-331-2247 | michaelonskis@gmail.com

EDUCATION

UNIVERSITY OF COLORADO BOULDER

Bachelor of Science in Mechanical Engineering, Minor in Engineering Management, May 2024; 3.53 GPA

TECHNICAL SKILLS

Solidworks Mechanical Design Associate Level, AutoCAD, Microsoft Office, Circuit Design and Analysis, MATLAB, C++, Project Management, Arduino, Stepper and Servo Motors, Laser Cutting, 3D Printing, Manufacturing

WORK EXPERIENCE

COLLEGIATE FIELD STAFF, Navigators Christian Nonprofit MAY 2024 - PRESENT

Raised over $60,000 to support the Navigators ministry at the University of Colorado. Mentored 7-10 college students weekly. Regularly presented to and taught groups of 80+. Led weekly Bible studies and planned/executed monthly events for 50+ people independently and with teams. Regularly communicated with my supervisor regarding action items. Used flexible work hours effectively by budgeting my time carefully - prioritizing most urgent tasks.

MECHANICAL ENGINEER INTERN, Altius Space Machines MAY 2023 - AUGUST 2023

Designed, prototyped, tested, and assembled demo housing for the company's newest product: a spacecraft connection port. Tested multiple assemblies of flight-ready hardware, including extensive force, cycle, and vibration testing for a propellant transfer valve. Worked with programmable magnets and two-stage satellite connections. Absorbed industry knowledge and component/assembly design methods from experienced engineers. Manufactured parts on a mill and with a 3D printer. Company has been acquired by Voyager Space.

MAINTENANCE STAFF, YMCA MAY 2021 - AUGUST 2021 and MAY 2022 - AUGUST 2022

Worked with a team of fifteen at YMCA of the Rockies Snow Mountain Ranch, maintaining buildings and grounds across the 8,000 acre property. Developed professional communication skills with manager and co-workers, independently planned and executed efficient work days without direct supervision.

ENGINEERING PROJECTS

SENIOR DESIGN PROJECT R.O.C.K. [MCEN 4045 SENIOR DESIGN], SEPTEMBER 2023 – MAY 2024

Led a team of 10 as project manager to provide the U.S. Army a functioning prototype which uses a 3-stage sensing suite to identify an oncoming vehicle, and then launch a device upward onto the underside of the vehicle for tracking purposes. Using SolidWorks, I designed, 3D Printed, and tested multiple iterations of the main housing, launch tube, and sensor mounts. Led periodic project status meetings with the U.S. Army, created project deadlines, assisted in developing numerous test plans, assembled the entire project, and led team in preparing project poster and presentation, featuring a live demo. Client was impressed by our project, which met all eight key design requirements including reliability, safety, aesthetic, and thermal specifications. See video here or tinyurl.com/3vbwj5sn

DRILL POWERED SCOOTER [MCEN 3025 COMPONENT DESIGN], SEPTEMBER 2022 – DECEMBER 2022

As project manager, led a team of six in preliminary design, CAD modeling, review and redesign, manufacturing, and testing of a cordless drill-powered vehicle. Optimized for a 30-minute endurance race with light design, high torque gear ratio, and simple frame design. See video here or tinyurl.com/25ma5d4u

EXTRACURRICULAR EXPERIENCE

NASA JET PROPULSION LABORATORY SPACE ACADEMY AUGUST 2019 - NOVEMBER 2019

Designed, built, and tested launching device and landing device to accurately launch and protect an enclosed computer. Developed presentation and team management skills. Won most accurate launcher award.

ACCOMPLISHMENTS

FUNDAMENTALS OF ENGINEERING (FE) EXAM - PASS MARCH 2024

Result Verification Link or tinyurl.com/3pfw5jym

SOLIDWORKS MECHANICAL DESIGN ASSOCIATE LEVEL APRIL 2021

SCOUTS BSA - EAGLE SCOUT MARCH 2014 - NOVEMBER 2019

Earned Bronze and Gold Eagle Palms for earning thirty-three merit badges, surpassing the required twenty-one. Elected Senior Patrol Leader by fellow scouts. Led 200+ scout troop for a year.