COLE MACPHERSON

Aerospace Engineer

University of Colorado Boulder

(949)-244-6592

cole.e.macpherson@gmail.com

WHO AM I?

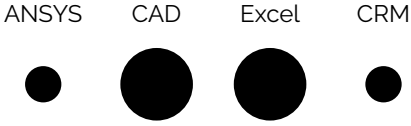
I am an undergraduate at the University of Colorado Boulder a strategic university partner of JPL (see: https://surp.jpl.nasa.gov/). My strong interests are spacecraft design, as well as design verification and validation. It is my dream to be a systems engineer at JPL.

GPA

3.42

B.S. AEROSPACE ENGINEERING

May 2022



COURSE WORK

- Aerodynamics
- Aircraft Electronics and Communications
- Data Structures
- Aircraft Dynamics
- Orbital Mechanics/Attitude Dynamics and Control
- Material Science
- Structures
- Thermodynamics and Heat Transfer
- Vehicle Design and Performance
- Experimental and Computational Methods

PROJECTS

Spring 2020 — **Glider Design and Testing** — **University of Colorado Boulder**
Designed a MATLAB script that used aerodynamic equations to analyze a glider design that was then fabricated and tested.

Fall 2019 and Spring 2020 — **Bottle Rocket Modeling and Launch** — **University of Colorado Boulder**
Designed a MATLAB script that utilized thermodynamic equations to analyze many parameters for a bottle rocket design. This design was later fabricated and launched.

Spring 2020 — **Data Structure Efficiency Analysis** — **University of Colorado Boulder**
Constructed C++ code to help the USPS determine which data structure was the most efficient for sorting mail tracking IDs. Five data structures were analyzed for their tracking efficiencies.

Fall 2020 — **Cube-Sat Radiator Design** — **University of Colorado Boulder**
Given a set of design requirements and a cube-sat, a radiator was to be constructed that would keep the satellite within a specific temperature range while in geosynchronous orbit.

Spring and Fall 2020 — **Truss Analysis** — **University of Colorado Boulder**
Given a specific truss and an applied force, the resultant forces and moments associated with the system were found using ANSYS and a created MATLAB script.

SKILLS

English - native
Spanish - proficient

OTHER INTERNSHIPS

Computer Science Intern in Barcelona (Cancelled due to COVID-19 pandemic)

PORTFOLIO

https://macphersoncole.github.io/Cole-MacPherson/