COLE MACPHERSON

Aerospace Engineer

University of Colorado Boulder

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WHO AM I?

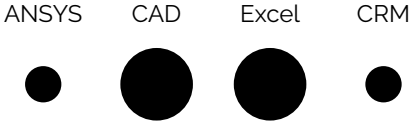
I am a undergraduate at the University of Colorado Boulder a strategic university partner of JPL (see: https://surp.jpl.nasa.gov/). My strong interests are spacecraft design, as welll as design verification and validation. It is my dream to do systems engineering at JPL.

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/