# Nicholas Woolsey

Diligent and dedicated to achieving excellence, consistently demonstrating exceptional drive with a positive attitude. Willingness to take on additional responsibilities to meet team goals.

## EDUCATION

**Bachelor of Science: Mechanical Engineering Major** — *3.571 GPA* —

**Electrical Engineering Minor**

*August 2023 - May 2026, University of Colorado - Boulder*

- Relevant coursework: Fluid Dynamics, Thermodynamics, Materials Science

**Front Range Community College** — *3.58 GPA* —

*August 2020 - December 2023*

- Completed 76 credits towards a BS in Mechanical engineering
- Member of Phi Theta Kappa Honor Society
- Received Dean's List award last 4 semesters
- Relevant coursework: Solids, Dynamics, Mechanics of Solids

**High School Diploma** — *4.1 GPA* —

*August 2016 - May 2020, Centaurus High School*

- 4 years of Engineering courses
- Awarded Certificate of Academic Excellence 2018-19
- Awarded Certificate of Oustanding Achievement 2016-17 and 2018-19
- Awarded Cum Laude Honors

## ENGINEERING EXPERIENCE

**Robotics Workshop Leader Intern**

*May 2023 - August 2023, Colorado Space Grant Consortium, Boulder, CO*

- Mentored 30+ college students in the fundamentals of Arduino, soldering, coding, and robotics.
- Designed, tested, and facilitated workshops and delivered presentations.
- Accumulated valuable leadership and mentor experience.

**Drone Research Intern - National Science Foundation; Research Experience for Undergraduates**

*May 2022 - August 2022, Colorado State University, Fort Collins, CO*

- Researched a modified passive bistable gripper for drone perching.
- Applied knowledge from numerous research papers related to gripper technology.
- Implemented spring steels into multiple original designs modeled in Fusion 360, utilizing FDA/SLA 3D printing and Arduino-based robotics.
- Operated tensile stress instruments to gather gripper strength data.
- Presented results using strong verbal and written communication skills to professors and graduate students.

## Contact


**Location**

Boulder, CO, 80026

**Phone**

720-376-2433

**Email**

nicholas.woolsey01@gmail.com

**LinkedIn**

www.linkedin.com/in/nwoolsey

**Portfolio**

nickw36.github.io/NicholasWoolsey/


## Skills

Research and Analysis

Good

Research Design

Very good

Proficient in C++

Good

CAD expertise

Very good

Lathes and mills manufacturing

Good

### Boulder Valley School District Floorplan Contract Internship

*June 2019 - July 2019, Boulder Valley School District, Lafayette, CO*

- Gained familiarity with blueprints and floor layouts.
- Worked alongside industry professionals editing floorplans using CAD.

## WORK EXPERIENCE

### Stocking and Receiving Associate

*July 2018 - Present, Walmart, Lafayette, CO*

- Receive and unload pallets and deliveries.
- Organize products within the warehouse and prepare them for the floor.
- Stock and merchandise products.
- Provide excellent customer service greeting customers and answering questions.
- Demonstrate reliability and consistency while balancing work life and college.

## ENGINEERING PROJECTS

### CU Robotics Manufacturing Team Member

*September 2023 - Current*

- Collaborate with other specialized engineering students, transferring CAD models received from the design team to CAM operations in Fusion 360.
- Manufacture complex parts for the national RoboMaster Competition on lathes and 3-axis mills.

### NASA Community College Aerospace Scholars Alumni - 3 Missions

*July 2023 - February 2024*

- Gained insight into NASA operations and directorates learning directly from NASA engineers and professionals.
- Created infographics and completed a simulated Mars mission for missions 1 & 2.
- 1 of 230 students accepted into Mission 3 to continue the NCAS program at Langley Research Center and present an original proposal to NASA engineers.
- Conducted extensive research on eVTOL vertiports for Urban Air Mobility.
- Developed proof of concept in Fusion 360 demonstrating unique and modular, battery swapping, eVTOL storage facility and hub.
- Executed a professional presentation for engineers, program leads, and cohort.

### NASA COSGC Robotics Challenge

*September 2021 - April 2022*

- Over an academic year built an autonomous obstacle avoidance rover in a team of 2, competing alongside other state colleges at the Great Sand Dunes.
- Acquired experience in circuits, C++, and mastered new soldering techniques.
- Utilized Fusion 360 to create an optimized rover chassis using 50% less material while maintaining structural strength, resulting in the Best Structure Award.
- Despite numerous challenges, was a devoted team member spending many long nights working, ultimately building a rover that completed all 5 Mars simulation courses at the challenge event.
- Received a Certificate of Achievement and top honors for robotics poster.

## Certifications

*2020-05*

Solidworks Additive Manufacturing Associate

*2021-04*

Solidworks Mechanical Design Associate

## Interests

Playing the acoustic guitar

Calisthenics

Alternative music

3D printing