

# GREGORY LUND

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## EDUCATION

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### University of Colorado, Boulder

Bachelor of Science, Mechanical Engineering

Bachelor of Science, Computer Science

May 2021

GPA: 3.90/4.00

## ENGINEERING EXPERIENCE

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### Automated Robotics and Perception Group

*Research Assistant*

October 2019 - Present

*University of Colorado, Boulder*

- Collaborating with a team of students and faculty to design and manufacture systems in support of the DARPA Challenge team, MARBLE
- Designed and prototyped a self-contained linear actuator system for a radio package deployment aboard an autonomous robotics platform

### Colorado Space Grant Consortium

*RocketSat-X Structures Lead & Systems Engineer*

October 2018 - Present

*University of Colorado, Boulder*

- Collaborating with a team of students and industry sponsor to design and manufacture a sequencing mechanism for passive solar array deployment
- Utilizing CAD software to design parts for manufacturability and durability in rocket and space environments
- Utilizing a variety of machines to manufacture parts including mills, lathes, cnc mills and DMLS 3D printing.

### Intro to Robotics Project

*Chomp 2.0 (Mock Battlebot)*

Fall 2019

*University of Colorado, Boulder*

- Collaborated with a team of 5 students to build and test an autonomous robotic platform
- Utilized ROS to communicate between hardware across multiple platforms
- Implemented basic robotics algorithms from odometry and mapping to background subtraction and blob detection

## TECHNICAL STRENGTHS

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### Computer Languages

C/C++, Python, Java, MATLAB, HTML/CSS, SQL, Scala

### Tools

ROS, Mathematica, LaTeX, Bash/Shell Scripting

### CAD

Solidworks(CSWA), Fusion 360(CAD and CAM)

### Machines

Lathe, Mill, CNC/3D Printing

## SELF-DIRECTED PROJECTS

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See <https://greg-lund.github.io>

Designed and built a midsize CNC Router

Designed and built two FDM 3D printers

Designed, built and tested a Tesla Turbine

Scratch built model airplanes and quadcopters

Experimented with electronic circuits including digital logic

Experimented with Arduino controllers including an LED based audio visualization system