GREGORY LUND

Boulder, Colorado | 303-562-6026 | greg.lund@colorado.edu | Portfolio: https://greg-lund.github.io

EDUCATION

University of Colorado, Boulder May 2021
Bachelor of Science, Mechanical Engineering GPA: 3.91/4.00
Bachelor of Science, Computer Science
Minor, Applied Mathematics

ENGINEERING AND RESEARCH EXPERIENCE

Automated Robotics and Perception Group October 2019 - Present
Research Assistant *University of Colorado, Boulder*

- Collaborating with a team of students and faculty to design and fabricate mechanical and software systems in support of the DARPA Challenge team, MARBLE
- Researching and developing methods to navigate robots through dense human crowds
- Implementing methods in robotics from dynamic path planning and replanning to deep reinforcement learning and computer vision

Colorado Space Grant Consortium October 2018 - Present
RocketSat-X Structures Lead & Systems Engineer *University of Colorado, Boulder*

- Collaborating with a team of students and an industry sponsor to design and manufacture a sequencing mechanism for passive solar array deployment
- Leading the structures subteam and helping manage the project as systems engineer
- Utilizing CAD software to design parts for manufacturability and durability in rocket and space environments

Senior Design Project Fall 2020 - Present
Software Engineer *University of Colorado, Boulder*

- Collaborating with the Jet Propulsion Laboratory to prototype electromagnetically-actuated, self-assembling satellite swarms
- Utilizing FEA to design and optimize electromagnets and satellite structures
- Leading efforts in software and controls

TECHNICAL STRENGTHS

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

Built a fully functioning 8 bit computer from discrete logic
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