GREG LUND

greg.lund21@gmail.com | Portfolio: https://greg-lund.github.io

EDUCATION

Stanford University 2021-2023
Master of Science, Aeronautics and Astronautics GPA: 4.00/4.00
National Science Foundation Graduate Research Fellow (NSF GRFP)

University of Colorado Boulder 2017-2021
Bachelor of Science, Mechanical Engineering GPA: 3.93/4.00
Bachelor of Science, Computer Science
Minor, Applied Mathematics
Dean's List, Esteemed Hale Scholar 2017-2023

ENGINEERING AND RESEARCH EXPERIENCE

Navigation and Autonomous Vehicles Lab September 2021 - September 2022
Student Researcher *Stanford University*

- Collaborated with fellow PhD students and faculty to develop a novel low-compute localization and mapping system for robotic systems
- Collaborated with NASA JPL to develop novel localization methods for groups of lunar rovers
- Presented research findings and gave feedback on peers' research in weekly lab meetings

Colorado Space Grant Consortium October 2018 - May 2021
RocketSat-X Structures Lead & Systems Engineer *University of Colorado Boulder*

- Led the structural development of a passive solar array deployment system for small satellites.
- Utilized CAD software and FEA tools to design parts for manufacturing and durability in launch and space environments, and machined these components
- Oversaw the development and implementation of test procedures to validate our design pre-launch

Autonomous Robotics and Perception Group October 2019 - May 2021
Research Assistant *University of Colorado Boulder*

- Collaborated with a team of students and faculty to design and fabricate mechanical and software systems in support of the DARPA Grand Challenge team MARBLE
- Developed novel methods for robotic navigation in dense human crowds
- Implemented methods in robotics from dynamic path planning and replanning to deep reinforcement learning and computer vision

TECHNICAL STRENGTHS

Prototyping	Microcontrollers, CNC and Manual Machining
Software	CAD (Solidworks: GD&T, Engineering Drawings), CAM
Programming Languages	C/C++, Python, Julia, Java, HTML/CSS/JS, SQL

SELF-DIRECTED PROJECTS See https://greg-lund.github.io

Built hardware and control system for an inverted pendulum
Built a large-scale lithium battery pack from recycled laptops
Designed and built a 2-person portaledge
Designed and built a midsize CNC router and 2 FDM 3D Printers
Various projects utilizing machining, rapid prototyping, woodworking, welding, masonry and electronics