

# Lauren Strand

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## EDUCATION

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University of Colorado Boulder - May 2020

**Bachelor of Science Mechanical Engineering, Minor in Computer Science**

Overall GPA: 3.503

## TECHNICAL SKILLS

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CAD: SOLIDWORKS (130+ hrs., CSWA), NX (40 hrs.), Inventor (20 hrs.), Creo (20 hrs.)

Computer (in order of proficiency): MATLAB, C++, C, Excel, HTML, CSS, Git

Testing/Manufacturing: TVAC, Random Vibration and Shock Table Operation, Spectrum Analyzer Operation, Milling, Lathing, Laser cutting, 3D printing

## PROJECTS

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**LOFTID EDR** | 11/2020 – 08/2021

- DARS with autonomous sequencing during and after ejection from RV and provided real time telemetry and position
- Served as secondary test POC during Ejectable Data Recorder (EDR) system Qualification and Acceptance test flows and lead troubleshooting efforts requiring frequent coordination with LOFTID PM, Electrical Lead, and NASA personnel
- Co-authored CVM and completed verification activity, method, and documentation for 10+ spaceflight hardware deliverables
- Often utilized digital logic analyzer to understand state-dependent behavior and verify nominal functionality of RS422

**Wired Camera Assembly Thermal Characterization Test** | 11/2021

- Designed and executed thermal characterization test of wired camera for the purpose of validating thermal model and assessing lens focus shift at cold and hot temperatures
- Devised and optimized test setup to capture MTF images at each thermal balance at vacuum, taking into consideration thermal vacuum chamber viewports in relation to camera adapter plate location, illumination methods of SFRreg test chart, and useful temperature delta between setpoints at cold and hot balances

## TECHNICAL EXPERIENCE

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**Test Engineer** | Deep Space Systems | 05/2020 – Present

- Test space flight hardware following MIL-STD-1540E for missions such as Orion and LOFTID
- Troubleshoot hardware and software issues by systematically recreating behavior while determining probable root causes
- Write clear test procedures and format detailed test reports that thoroughly document procedural and/or numerical deviations
- Communicate design issues and risks based on environments and benchtop testing results to intracompany and intercompany teams
- Assist with issue of non-conformance reports and resulting corrective actions

**Logistics Manager and Design Team Member** | 08/2019 – 05/2020

- Designed wildland firefighter respiratory protection device to address and mitigate acute and chronic effects of exposure to smoke
- Performed thoughtful, basic heat transfer and dynamics analysis to justify design features and properly select materials and geometry
- Organized and coordinated all internal and external team interactions, which included scheduling meetings, recording meeting minutes, and emailing client, directors, staff, and team

**Solutions Engineer Intern** | Anark Corporation | 05/2019 – 10/2019

- Coded automated browser tests using Katalon to reduce manual pre-release testing time and improve efficiency of testing process
- Identified and logged software deficiencies by recognizing and testing related trends to prevent customer issues and ensure quality
- Reverse engineered client models in programs such as Creo and NX in order to pinpoint and solve technical problems to be integrated into tests by the development team