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# Luke R. Borgerding - *Engineer in Training*

40542 Steamboat Dr. • Steamboat Springs, CO, 80487 • (970) 819-0590 • luke.borgerding7@gmail.com

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## Professional Summary

I am a recent graduate from the University of Colorado Boulder with a BS in Mechanical Engineering. My education and senior capstone project, combined with a diverse work background, has equipped me with a comprehensive skill set that I am eager to apply in my career. I am particularly passionate about the energy and environmental fields, with a desire to improve our natural systems and integrated infrastructure.

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## Skills

**Certifications:** *Engineer in Training* - Passed FE Exam for Mechanical Engineering, *Certified Solid Works Associate* - Passed CSWA

**Technical Skills:** SolidWorks, MATLAB, C++, VS Code, EES, LabVIEW, Proficient with CNC & other machining, Oscilloscope and electronic devices; basic knowledge HTML, Java, and AutoCAD

**Soft Skills:** Leadership, Situational Awareness, Adaptability, Problem-solving, Reliability

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## Education - Graduated May 2023

**University of Colorado Boulder, Boulder, CO, USA**

Bachelor of Science in Mechanical Engineering

- GPA: 3.62 & 5 semesters on the Dean's List
  - C++ Computer Science, Calculus 2 & 3, Differential Equations and Linear Algebra, Physics 1 & 2, Chemistry, Statics and Structures, Materials Science, Mechanics of Solids, Dynamics, Thermodynamics 1 & 2, Component Design, Computational Methods, Circuits, Fluid Mechanics, Heat Transfer, Data Analysis, Manufacturing Processes, Sustainable Energy, System Dynamics, Project Management Systems
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## Work Experience

**Senior Capstone Project: Integrated Sensor Testing System for Growing Media - Test Engineer**

August 2022 - May 2023 | Boulder, CO

- Creating an integrated housing system that uses screen-printed transducer sensors to measure NPK (Nitrogen, Phosphorus, Potassium) nutrient levels in hydroponic fluid
- Collaborating with clients to establish project scope and requirements for a startup company
- Rapid prototyping and iterative refinement of device to interface housing and electronic systems
- Developing test procedures, evaluating data, and providing recommendations derived from results
- Helping improve efficiency for hydroponic farmers by streamlining testing process

**Winters Window Washing - Manager**

May 2020 - November 2023 | Steamboat Springs, CO

- Leading and managing a team while engaging with clients to ensure successful outcomes
- Acquiring valuable hands-on experience in entrepreneurship with a startup company

**Mountain Roots Inc. - Landscaping Construction**

May 2018 - August 2019 | Steamboat Springs, CO

- Constructing outdoor living areas within a team to enhance residential and commercial spaces
- Operating large machinery and tools to manufacture high-quality finished products
- Installing and programming irrigation systems, running electrical wire for special features

**SEAD - Steamboat Engineering and Architectural Design, Steamboat Springs - Intern**

January 2018 - June 2018 | Steamboat Springs, CO

- Working with Engineering Professionals to model and create drawings on AutoCad
- Reading and understanding architectural drawings, engineering codes and regulations