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Lucas Niewohner

Herman, NE, 68029 and Golden, CO, 80401

Summary

I am an experienced roboticist, data scientist, communicator, experimenter, and applied developer with extensive startup experience. I'm passionate about forming relationships, focusing on the big picture, testing in the field, and helping people via technology. I'm looking to help an innovative team do Robotic Intelligence once I finish my Masters in December 2025.

Recent Experience

Field Engineering Intern Scythe Robotics	2025-now Longmont, CO
• Reworked robot data infrastructure in Rust to facilitate "Log Queries" to extract data for Data Science and debugging • Democratized access to video, GPS data with new UI, allowing support team to diagnose problems without engineer time • Reduced typical upload sizes by 90-99% (depending on requested data), dramatically reducing LTE, storage costs	
Robotic Intelligence Developer Greenline Autonomy	2024-2024 Herman, NE
• Built real-time, LiDAR-based panel and post detection for specialized Solar Field navigation and obstacle avoidance • Automatically annotated over 100k images using time-synchronized LiDAR for use in a deep visual network	
ROS Robotics Developer Birdseye Robotics/Hogwash Robotics	2019-2024 Waterloo, NE
• Designed, prototyped, tested in-field, and co-patented a poultry mortality collection system • Collected data, architected, and integrated Computer Vision models, a SLAM Localization System, BTs, and other techs • Birdseye secured over a million dollars in investor funding after a successful product demonstration	
Robotic Mapping Intern Stratom Autonomy LLC	2023-2023 Boulder, CO
• Lead a team of 4 to plan, present, develop, and test a ROS2 obstacle detection system which surpassed reliability goals.	

Education

B.S. Computer Science – Robotics and Intelligent Systems, Minor in Data Science Colorado School of Mines	GPA: 3.9 May 2025
Highlighted Experiences: Robotics, SLAM, Machine Learning, Robot Planning, Study Abroad in FR, NZ	
Masters in Robotics Colorado School of Mines	GPA: 4.0 Dec 2025

Knowledge, Skills, Abilities

Technical Skills:

Languages: Python (Expert), Rust, C++, C#, Java, R, HTML, CSS, JavaScript, TypeScript, MySQL
Technologies: Flask, OpenCV, Android Studio, ROS2, ROS2 Navigation Stack, VSLAM, LiDAR SLAM, Behavior Trees
Data Science Tools: SciPy, Scikit-learn, Numpy, Pandas, Geopandas, and Tensorflow with Keras, MS Office, Excel
Hardware: Nvidia Jetson, Intel NUC, Arduino, Raspberry Pi, ESP32, Xbee/LoRa, CAN and other robot hardware

Soft Skills:

Known for my ability to **mentor** and **explain** via analogies. Practiced at Technical and Professional **Writing, Presenting**
Have demonstrated **adaptability, problem-solving, teamwork, and leadership** when testing on-site, traveling abroad
Employers have commented that my **confidence, work ethic, and time management** enable me to quickly solve problems

Honors, Awards, and Extracurricular Activities

- Former FIRST Tech Challenge Robotics Nebraska State Champion, World competitor. Now Volunteer (7 years)
- Developed an Underwater ROV with the Mines Robotics Club using VSLAM and CUDA acceleration (4 years)
- CO Mines Marching Band Percussionist (5 years)
- Machine Learning TA and frequent tutor. Known for my ability to create analogies and communicate difficult topics simply.