

Karsten Sierra

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karstoony.com

Alaska Native US Citizen

Education

University of Alaska Fairbanks
BS Mechanical Engineering

Date of graduation: May 2025

Fairbanks, AK

Skills

Technical Solidworks, Fusion 360, Javascript, matlab, python, google suite (sheets, docs etc), Ai Training, C++, Jupyter Notebook, Linux Admin, QGIS, Google Earth Engine

Other Leadership, juggling, General Machining, 3d printing, Photography, Video/Picture Editing, written and spoken communication

Experience

Institute of Northern Engineering
Student Employee

May 2024- Present
Fairbanks, AK

- Developed optimized model to produce 3d printed maps of Alaskan coastal communities utilizing topobathemetric data, a reduction of five programs to two programs
- Leveraged Google Earth engine data sets to generate images for satellite derived bathymetry Satellite Derived Bathymetry
- Created an Artificial Intelligence tool in Gemini (AI) to extract metadata from Alaskan Hazard Mitigation Plans, to improve & expedite the understanding of coastal community concerns

Alaska Center for Energy and Power
Intern

Summer 2023
Fairbanks, AK

- Conducted site visit and survey multiple Alaskan community microgrids
- Implemented a documentation process for manually processed topobathemetric Lidar data
- Delivered presentation of results from work to the Alaska Center of Energy and Power

Geophysical Institute
Communications Assistant

2021-2023
Fairbanks, AK

- Work with staff and scientists on a variety of projects, event planning, and mobile planetarium operation. Hands-on experience with photography, videography, and program building.

Juggling Club - UAF Campus
Chief Juggling Officer

Present
Fairbanks, AK

ANSEP Scholarship Recipient
Alaska Native Science and Engineering Program

2020-Present

Projects

Team Happy Light
Team Lead

2022