

Garrett S. Krage

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Objective: Looking for jobs in GIS software engineering specifically working with GPS data in environmentally focused applications.

Education: **University of Denver** Completion: March of 2020
Certificate of Completion
Full Stack Web Development

Bachelor of Science Graduation: May of 2019
Major: Geography GIS
Colorado University, Boulder, CO

Related skills: **GIS software**
Proficient in ArcGIS, ArcMAP, Python, ENVI, R studio. Also finding images in Earth Explorer, GloVis, Landsat look viewer.

Full Stack Web Development
HTML, CSS, MVC, API's, React, MySQL, MongoDB, Node.js, Express.js, JavaScript, JQuery, ORM, the MERN stack and Agile work environment.

Relevant Work Experience

Digital Globe Summer Internship, DigitalGlobe, Westminster, CO Summer 2018

- My position was a GIS developer
 - Created ArcMAP toolboxes using python language. The tool was used to process and create tasking orders for AOI's.
 - Worked on web development using HTML, CSS, and JavaScript language

Web development

National Parks and Monuments App, University of Denver Jan/2020

- A simple app for obtaining information about local parks.
HTML 5 • JavaScript • JQuery • Materialize CSS • Ajax API calls

Inventory Management System App, University of Denver Jan/2020

- This app was set up to be a lightweight inventory control program. Users can create, read, and update customer/inventory information within the database.
Validate.js • Handlebars Templating • JQuery • MySQL database • Express.js • Node.js

Solar Savings App, University of Denver Feb/2020

- This app inputs a customer's annual electric utility consumption without solar panels then outputs kW and financial savings analytics as if solar panels were on site.
MongoDB • Express.js • React • Charts.js • MERN stack

Lab Experience

GIS Programming for Spatial Analysis, *University of Colorado at Boulder*, Boulder, CO Jan/2019

- Python language programming
 - Created Python scripts for geoprocessing in ArcMAP
 - Very familiar with ArcPy and Python modules

GIS Project Management, *University of Colorado at Boulder*, Boulder, CO Jan/2019

- Completed full GIS analysis and write up on the feasibility of a Community Solar farm in Boulder.
 - Familiar with data collection from web sources
 - Familiar with data types: .shp .kml, raster and vector

Advanced Remote Sensing, *University of Colorado at Boulder*, Boulder, CO Jan/2018

- Interpreting thermal infrared imagery
 - Calculating land and sea surface temperatures
- Fast Fourier transforms
 - Applying multiple filters in frequency domain
- Satellite image classification
 - Supervised/Unsupervised classifications
- Calculating NDSI from Landsat 8 imagery
 - Density slicing
 - Calculating snow coverage area (SCA)

Cartography and Information Design, *University of Colorado at Boulder*, Boulder, CO Aug/2018

- ArcMAP experience
 - Created multiple maps with imported data
 - Very familiar with user interface and capabilities

Remote Sensing of the Environment, *University of Colorado at Boulder*, Boulder, CO Aug/2017

- Image analysis with Landsat Multi-spectral scanner (MSS)
 - Histogram Stretching
 - True/False color composites
 - Region of interest (ROI) analysis
- Using Lidar for Boulder Colorado debris flow
 - Created DTM's and DSM's
 - Lidar analysis in ArcGIS
 - Creating 3D elevation/surface models
- Satellite image pre-processing
 - Geometric/radiometric correction and enhancement

Other Skills: Had a leadership role in a NOLS mountaineering course. Our group of fourteen spend one month crossing a mountain range in British Columbia.