### Emily Maynard

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### Summary

Data analyst with skills in Python, SQL, R, and Javascript founded while achieving a certificate from Columbia University’s data analytics bootcamp. A recent project used Javascript and a Mapbox API to plot earthquake data on a visually appealing map to demonstrate recent earthquake magnitude and proximity to tectonic plates. Works well with teams and individually as an organized coder who collaborates with classmates to debug code, refactoring for efficiency. Motivated to succeed by accomplishing challenging tasks while coding, then creating attractive visualizations. A Master’s degree in environmental policy lays the groundwork for using data to combat the impending ecological crisis. Goal is to become a data analyst using technical coding skills with math and science to impact environmental protection. A long-term goal is to become a data scientist, potentially working on climate modeling.

### Technical Skills

**Tools:** Excel, VBA, Python, Pandas, ETL, SQL, SQLite, Flask, HTML/CSS, Javascript, Tableau, R, machine learning

**Databases:** SQL, MongoDB

### Projects

#### Mapping Earthquakes | https://github.com/emaynard10/Mapping\_Earthquakes

#### Coded in JavaScript and the D3.js library to retrieve the coordinates and magnitudes of  earthquakes from the GeoJSON data collected from USGS. Used the Leaflet library to plot the data on a Mapbox map through an API request and created interactivity for the earthquake map.

Used Leaflet and Mapbox to map earthquake data collected from USGS over the previous seven days and mapped the earthquakes with corresponding magnitudes. Included map layers for user interactivity to visualize separate data on each layer.

**Tools:** JavaScript, D3.js, Mapbox, Leaflet, VS Code, html/css

#### Crop Yield Analysis | https://https://github.com/emaynard10/Crop\_Yield\_Analysis

#### Utilized FAO website to extract data, designed a question/problem, transformed data, loaded in pgAdmin, joined tables with SQL, connected to linear regression model, and ran statistics on model results.

#### Created a group project and displayed results in a Tableau dashboard and on a Mapbox/ Leaflet map. Ran multivariate linear regression on crop data to predict crop yields.

**Tools:** Python, Pandas, Jupyter Notebooks, linear regression, pgAdmin, SQL, Javascript, Leaflet, Mapbox, Tableau, Google Slides, sklearn, statsmodels

#### Machine Learning | <https://github.com/emaynard10/Nueral_network_charity_analysis>

#### Used neural networks to try and predict which charity projects to fund based on likelihood of the success of the project. Adjusted model and used auto-optimizer to try and achieve target model performance. Includes recommendations for other models.

Altered features to reduce noisy variables, changed hidden layers, neurons, and activation functions to try and achieve target model performance of 75%.

#### Tools: Python, Pandas, jupyter notebooks, sklearn, tensorflow, keras

### Experience

#### Field Ecologist           2022 – Present

**Independence Pass Foundation           Aspen, CO**

* Gathered data on phenology studies to determine the ecological succession and success of species in the era of climate change
* Collected data on visitor use, beavers, and pika partnering with the Colorado Pika Project. Plans to automate analysis of data once it is all collected at the end of the summer. Determined how these studies may play a role for the company in the face of wildfire or other climate related ecologic crisis
* Restored ecological integrity with transfer of lands to wilderness, trail and road cut erosion projects, and invasive weed mitigation
* Conducted three studies and finished weekly projects over the course of three months

#### Aspen Mountain Ski Patrol, Snow and Avalanche Specialist 2014-Present

#### Aspen Skiing Company Aspen, CO

**Snow and Avalanche Mitigation Coordinator 2016-present**

* Amassed weather data and debugged issues with weather forms, equipment, and data loggers resulting in a department wide daily weather report. Attended Campbell Scientific data logger class.
* Analyzed avalanche incidents in detailed reports using weather data, and charts for visualizations, initiated fast response to accidents and problems
* Oversaw explosives handling, use, and inventory, maintained permits and certifications, delegated tasks and led daily projects
* Conceptualized a training program in avalanche rescue and explosives use for 35 employees
* Established myself as a leader on a team of seasoned veterans with innate attention to detail, technical rescue skills. End of season reviews all exceeded expectations for 8 years, leadership qualities earned praise from a boss: “If I could hire 30 of Emily, I would.”

#### Lift Evacuation Technician 2016-2017

* Maintained lift evacuation equipment, training, rescue operations, and documents
* Executed lift evacuations and coordinated personnel and departments as necessary

#### Basic Ski Patroller 2014-2016

* Learned medical and rescue skills and procedures including rope work, toboggan handling, injury documentation, basic rescue skills, and assisted on avalanche routes

### Education

**Boot Camp Certificate, Data Analytics, Columbia University**, **New York** September 2022

**M.A., Environmental Policy/Management, University of Denver, CO** November 2020

**B.A., University of Montana, Missoula, MT** May 2010