



education

Certificate | data science

Galvanize Inc. | 2019

MS | geology

Brigham Young University | 2017

- research: shape analysis of craters
- advisor: Jani Radebaugh

BS | earth & space exploration (geological sciences)

Arizona State University | 2015

- Minor: Sci., Tech., & Society

community

desertpy co-organizer

2018 to present

pydata phoenix organizer

2019 to present

skills

languages

Python

SQL

Unix/Linux

R

machine learning

tools

data structures & pipelines

web scraping & data mining

probability

linear & logistic regression

bayesian inference

random forests

boosting & gradient descent

natural language processing

A/B testing

recommenders & forecasting

dimensionality reduction

unsupervised learning

computer vision

deep learning

tech

docker w/ nvidia GPUs

cloud: AWS & GCP

spark, dask, & hadoop

postgresql & mongoDB

QGIS & GDAL

experience

Galvanize | data science fellow

Fall 2018 - Present

- advanced and maintained data science skills through projects and collaboration
- examined Phoenix metro area Hit & Run accident prevalence using open datasets
- explored the capability of modern satellite datasets in machine learning

Brigham Young University | research and teaching assistant

Fall 2015 - Winter 2017

- researched how the shape of volcanic landforms relates to origin
- delivered science content and materials at the university-level
- modified course curriculum to meet new educational objectives

Lunar and Planetary Institute | graduate exploration intern

Summer 2016

- planned a human/telerobotic mission on an international team for NASA HQ
- prepared & analyzed global-scale lunar datasets
- identified high-value science locations for future lunar exploration

Arizona State University | pancam team research aid

Fall 2013 - Summer 2015

- processed & calibrated raw imagery acquired by the opportunity mars rover
- co-managed science team workstations, servers, & scientific software

Jet Propulsion Laboratory | nasa pggurp research intern

Summer 2014

- modeled slope stability of observed scarps on Io thermal constraints
- constrained the mechanical strength and composition of Io's upper crust

U.S. Geological Survey, Astrogeology Branch | research associate

Summer 2013

- tested a model of Io's upper crust using observations and proposed compositions
- performed slope stability analysis on 50+ physical and material variables

projects / pubs

Slezak, 2019: "Geomapper" <https://github.com/tjslezak/capstone> </>

- Datasets: Multi-spectral satellite imagery and the Geologic Map of Arizona
- Task: Map the geology of regions using semantic segmentation (tensorflow)
- Training: 24 hrs on a P3.2XLarge GPU instance. Achieved: 71% recall score

Allender E.J., et al. 2018. Traverses for the ISECG—GER Design Reference Mission for Humans on the Lunar Surface. *Advances in Space Research*. 📄

Slezak T.J., J. Radebaugh, and E.H. Christiansen 2018. Quantitative Morphological Classification of Craterforms Using Multivariate Outline-Based Shape Analysis. *Lunar Planet. Sci. XLVIII*, #2640. 📄