THOMAS (TJ) SLEZAK

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SKILLS

Programming Python, SQL, Unix, Linux, Docker, Spark, SparkML, Dask, Hadoop, MongoDB
Machine Learning Regression, Classification, Bayesian Inference, Random Forests, Boosting, Gradient Descent, Dimensionality Reduction, Recommenders, Forecasting, Natural Language Processing
Software Amazon Web Services, Google Cloud Platform, Anaconda, ArcGIS, QGIS, JMP

EXPERIENCE

Brigham Young University Aug 2015 - Dec 2017
Research/Teaching Assistant | Supv: Jani Radebaugh *Provo, UT*

· Teaching Assistant for Planetary Geology, Physical Geology Lab, Intro. Geology

Lunar and Planetary Institute (USRA) May - Jul 2016
NASA SSERVI Graduate Exploration Intern | Supv: David Kring *Houston, TX*

· Planned a human/telerobotic mission to the lunar south polar region on an international team
· Delivered findings to International Space Policy Committees and NASA Headquarters

Arizona State University - Pancam/Mastcam Imaging Team Oct 2013 - Aug 2015
Research Aid and Lab Administrator | Supv: Austin Godber & Jim Bell *Tempe, AZ*

· Calibrated and processed imagery from the Pancam instrument on the Opportunity rover
· Developed PlanetaryPy, an open-source planetary data and image processing toolkit written in Python

Jet Propulsion Laboratory (JPL-Caltech) Jun - Aug 2014
NASA PGGURP Summer Intern | Supv: Ashley Davies *Pasadena, CA*

· Investigated Io's crustal strength using numerical modeling and slope stability analysis
· Tested proposed thermal conditions for sulfur and silicate compositions of Io's upper lithosphere

U.S. Geological Survey Astrogeology Science Center Jun - Aug 2013
Research Assistant | Supv: Laz Kestay, Chris Okubo, & Moses Milazzo *Flagstaff, AZ*

· Conducted finite-element slope stability analysis of paterae scarp walls on Io
· Identified physical properties and end-members for Io's crustal composition

EDUCATION

Galvanize Inc. Oct 2018 - Jan 2019
Data Science Immersive

Brigham Young University Aug 2015 - Dec 2017
M.S. Geology | Courses: Multivariate Statistics, Statistical Methods

Arizona State University Aug 2010 - Aug 2015
B.S. Earth and Space Exploration (Geological Sciences)
Minor in Science, Technology, & Society (STS)

Certifications Deep Learning (2019), Python for Research (2018), Unix Workbench (2018)

PROJECTS - RECENT

DSI Capstone - Geomapper, **2019**. www.github.com/tjslezak/capstone

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.