

THOMAS J. (TJ) SLEZAK

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EXPERIENCE

Brigham Young University

August 2015 - December 2017

Research/Teaching Assistant | Supv: Jani Radebaugh

Provo, UT

- Courses: Intro. Geology (F 15), Physical Geology Lab (F 16), Geology of the Planets (Sp 16/17)

Lunar and Planetary Institute (USRA)

May 2016 - July 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

October 2013 - August 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)

June 2014 - August 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

June 2013 - August 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

Brigham Young University

August 2015 - December 2017

M.S. Geology | Advisors: Jani Radebaugh, Eric Christiansen, Bart Kowallis, & Mark Belk

M.S. Thesis: "Quantitative Morphological Classification of Planetary Craterforms Using Multivariate Methods of Outline-Based Shape Analysis"

Arizona State University

August 2010 - August 2015

B.S. Earth and Space Exploration (Geological Sciences) | Advisors: David Williams & Amanda Clarke
Minor in Science, Technology, & Society (STS)

Senior Thesis: "Constraining the Composition of Io's Upper Crust from Structural Observations"

PUBLICATIONS - RECENT

Allender E.J., N.V. Almeida, J. Cook, J.J. Ende, O. Kamps, S. Mazrouei-Seidani, C. Orgel, T.J. Slezak, A.J. Soini, and D.A. Kring (In Review). 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.

TECHNICAL

Tools

Unix/Linux, Python, GDAL, R, GCP, NASA Ames Stereo Pipeline, SOCET SET

Software

ArcGIS 10.5, QGIS, JMARS, Adobe Suite, MS Office, SAS JMP Pro 13

Certificates

HarvardX PH526x: Using Python for Research (2018), The Unix Workbench (2018)
