Selena Kimball  
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SUMMARY STATEMENT

Geologist with primary research interests in volcanism, particularly the geochemical evolution, numerical modeling, and mapping of volcanic hazards. Have research experience, including laboratory and fieldwork, in volcanology and environmental hydrology with additional professional and educational experience pertaining to environmental science. Detail-oriented, and a team player with good communication, analytical and time management skills.

RELEVANT PROFESSIONAL TRAINING

**Volcanology Lab Intern**, May 2019 – Current

University of South Florida, Tampa, FL

* Currently modeling and mapping lahars at El Misti volcano using FLO-2D software in QGIS
* Assisted with heavy liquid mineral separations, flux fusion, loss on ignition and washing mineral samples
* Operated a jaw crusher to powder rock samples and then sieve them
* Learned about geochemical analysis using an electron probe, a scanning electron microscope and an optical emission spectrometer
* Prepared thin sections

**Geology Field Experiences**, April 2019 – June 2020

University of South Florida, FL

* Operated a Rangefinder to identify the height(thickness) and angle of a lava bed
* Identified stratigraphy and recorded soil characteristics using Munsell color chart and sorting/grain size properties
* Created geological cross sections and geological maps using Google Earth, scaling techniques, and UTM coordinates
* Used a clinometer and compass for cave/lava tube mapping techniques
* Participated in a volcanic ballistic projectile mapping and data recording exercise
* Used a Brunton compass to triangulate location and take strike and dips of outcrops
* Identified minerals, formation conditions, and metamorphic facies within the Appalachian orogeny
* Hiked 36 miles of rough terrain with a 40L backpack in Iceland

**Environmental Chemistry Research Volunteer**, March 2019 – March 2020

University of South Florida St. Petersburg, FL

* Collected water samples from five locations in Bayboro Harbor under EPA regulations
* Operated a Sonde water quality instrument to record data (pH, nitrogen, phosphates, etc) on a remote device
* Removed microorganisms from water samples using a diaphragm pump
* Used a hydrochloric bath to clean beakers and various equipment while maintaining laboratory safety and compiling to regulations

RECENT WORK EXPERIENCE

**Terra Ceia Preserve State Park Volunteer,** August 2019 – December 2019

Terra Ceia, Florida

* Used backpack and handheld pressure sprayers with dilute Glyphosate to remove exotic plant species
* Helped with the removal and surveillance of exotic animal species by setting hog traps and cameras
* Operated a Kubota compact 4x4 vehicle in rough terrain
* Assisted with land surveys

**Hydroponic Farm Intern,** August 2017 − January 2018

Pinellas PAL First Fruits Farm, West and East Lealman, FL

* Performed day to day tasks such as irrigation, weeding, sifting and cycling hydroponic mixtures (perlite & vermiculite) in hydrostacks
* Built irrigation system using PVC pipe and related materials

EDUCATION

Bachelor of Science in Geology: Geophysics Emphasis

University of South Florida, Tampa, FL GPA 3.90 (Major) 3.33 (Cumulative)

RELEVANT COURSEWORK

* Mineralogy/Petrology/Geochemistry: A+
* Structural Geology and Tectonics: A
* Physical Volcanology: A-
* Sedimentary Rocks and Processes: A-
* Stratigraphy and Paleontology: A
* Environmental Hydrology: B
* Geophysics Data Field Camp: A
* Modeling of Volcanic Processes (graduate course audit)
* Intro to Mapping in Volcanology Data Field Camp: A
* Structural Mapping Data Field Camp (future enrollment)
* Coastal Environments Data Field Camp
* Hydrology Data Field Camp
* Mapping and Geovisualization: A

RELATED PROFESSIONAL SKILLS

* Python: Intermediate
* MATLAB: Intermediate
* ArcMap/ArcGIS Pro/ArcGIS web app builder: Advanced
* QGIS: Advanced
* RStudio/R: Intermediate
* ReflexW + ResIPy: Beginner
* Microsoft Word/Excel/Powerpoint: Expert

CERTIFICATIONS

**CPR/AED/First Aid**, American Red Cross, June 2020 (expires June 2022)

**Hazardous Waste Safety**,University of South Florida Environmental Health & Safety, June 2020

**Lab and Research Safety**, University of South Florida Environmental Health & Safety, February 2019

PUBLISHED WORKS

**Kimball, S**, 2019, Using Moment of Inertia and Observable Planetary Features to Approximate the Two-Layer Structure of Earth, Jupiter, and Neptune, *Undergraduate Journal of Mathematical Modeling: One + Two*: Vol. 10: Iss. 1, Article 2.   
DOI: 10.5038/2326-3652.10.1.4907

Germa, A., **Kimball, S**., Martens, A., Quidelleur, X., Bablon, M. “Preservation of inherited argon in plagioclase crystals and implications for residence time after reservoir remobilization”, Fall AGU, V51F-0120 (December 2019).

SCHOLARSHIPS AND AWARDS

2020 ($2,000) GSA J. David Lowell Field Camp Scholarship Award

2017 ($2,000) St. Petersburg College, Study Abroad Scholarship Fund