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Alicia Noel

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Education

Davis, CA | **University of California, Davis** | **Fall 2008 – Summer 2012**

- Bachelors of Science in Geology, September 2012.
- Dean's honor list Fall Quarter 2010 and Winter Quarter 2012.

Skills and Experience

Software

- Geographical: Highly proficient in open source GIS (GRASS, Quantum GIS), ArcGIS, ENVI, SQL, GDAL/OGR
- Image processing and design: Adobe Suite (Photoshop, Illustrator, InDesign)
- Office Suite (Word, PowerPoint, Excel) and Google Docs
- Operating systems: Windows, Mac, Linux, Unix

Programming Languages

- Intermediate knowledge of Python, JavaScript, R, QGIS/OGR/GDAL APIs, Bash and command line scripting.

Course Projects

- Field Geology (Winter, Spring, and Summer quarters, 2012). Completed 5 map projects that included field surveying and mapping, using handheld GPS units, digitizing field maps to produce georeferenced maps in ArcGIS, and writing technical reports.

Publications

- *Noel, A.J., et al., Mineralogy, Morphology and Stratigraphy of the Light-Toned Interior Layered Deposits at Juventae Chasma, Icarus, 2014.*

Employment

GIS Operations Lead | **Google (via Adecco)** | **Sept. 2013-present**

- Contractor at Google campus via Adecco.
- Conducting GIS analyses of aerial and satellite imagery coverage/quality and presenting results to management for planning decisions and strategy. Used Maps API to create automatically up-to-date interactive coverage maps.
- Responsible for ordering huge volumes of satellite imagery each quarter from several providers while ensuring that orders meet specifications, responding to user requests and quality issues, and ensuring that only the most impactful imagery is ordered.
- Lead production efforts for the first statewide imagery resale deal, including processing and delivery of over 35 TB of data for customers in Google Maps Engine/Cloud Platform.
- Wrote a Python application (GDAL/OGR) to completely automate the resale program's coverage analysis process.
- Monitoring daily production and quality of data sets.
- Collaborating with external partners and multiple engineering groups to ensure data meets project specs and flows through pipeline from collection to production.

Research Assistant | **SETI Institute** | **Sept. 2012-Jan. 2014**

- Conducted remote sensing research on the surface geology of Mars through the use of photogrammetry and hyperspectral data (from the CRISM instrument aboard the MRO satellite). Use of ENVI, Google Earth/Mars, and ArcGIS software.
- Used ArcGIS to assemble 3D image mosaic maps of Mars multispectral data.
- Maintained a database of laboratory spectral data, and used Python scripting in GIS programs to automate data conversion tasks.
- Published a manuscript in a major scientific journal (see Skills section) and presented at several conferences.

USRP Student Intern | **NASA Jet Propulsion Laboratory (JPL)** | **Aug. 2011-Dec. 2011**

- Tested and demonstrated the capabilities of the Multispectral Microscopic Imager (MMI) instrument and identified areas of improvement.
- Used ENVI software to process the MMI spectral data and basic LabVIEW programming to improve the instrument user interface.

INSPIRE Student Intern | **NASA Ames Research Center** | **Summer 2008**

- Analyzed major sources of greenhouse gas emissions in California by economic sector through literature analysis and determined where gaps in our knowledge of emissions exist.
- Collaborated with NASA scientists and employees to determine how NASA observational and modeling capabilities could provide information to the state.