323 Tyrella Ave.
Mountain View, CA 94043

Alicia Noel

(650) 400-6674
ajnoel9@gmail.com
alicianoel.github.io

Skills and Experience

Software

- Geographical: Highly proficient in open source (GRASS, QGIS, GDAL/OGR), PostGIS, SQL, ArcGIS, Google Earth
- Image processing: ENVI, Google Earth Engine, Adobe Suite (Photoshop, Illustrator, InDesign)
- Operating systems: Mac, Linux, Windows

Programming

- Intermediate knowledge of Python, JavaScript, R, OGR/GDAL/Google Maps APIs, Bash scripting, HTML/CSS.
- Developed geospatial apps in Google App Engine and Cloud platform.

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 (contract via Adecco)** — **Sept. 2013-Aug. 2015**

- Complex vector and raster GIS analyses of aerial and satellite imagery coverage/quality for use in collection planning and strategy. Used advanced SQL queries and geoprocessing techniques to analyze huge imagery database.
- Sourced, evaluated, and ensured quality of new base map data for Google Maps.
- Responsible for using GIS to order huge volumes of satellite imagery 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.
- Served as technical program lead for the new imagery resale program, including developing workflows for processing and delivery of 100's of TBs of data for customers in Google Maps Engine/Cloud Platform.
- Wrote Python programs and tools to completely automate several of the resale program's GIS processes.
- Remotely trained and managed teams to use various open source and proprietary GIS tools for analytical projects.
- Monitoring daily production and quality of imagery data sets while troubleshooting data and pipeline issues and optimizing workflow.
- Collaborated with external partners, sales teams, 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 high resolution imagery, 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 and terrain data.
- Maintained a database of laboratory spectral data, and used Python scripting in GIS programs to automate data conversion tasks.
- Lead author of a published a manuscript in a peer-reviewed scientific journal (see Publications section). Presented research at several major geology 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 remote sensing 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.

Education

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

- Bachelors of Science in Geology, September 2012.