# **Dara Lynn Laczniak**

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#### PERSONAL STATEMENT

Ambitious and articulate post-baccalaureate geology graduate eager to pursue an advanced degree in planetary science. Research experience in martian meteorite petrology, martian soil geochemistry and sedimentology, and medical geology. Strong written and oral communication skills rooted in a theater background. Motivated by a desire to bridge the gap between science and the community.

## **EDUCATION**

# University of Nevada, Las Vegas (magna cum laude)

Las Vegas, NV

B.S. Geology, degree received December 2016

2013 - 2016

GPA: 3.96

Colorado College Colorado Springs, CO

Major: Undeclared 2012 - 2013

GPA: 3.95

#### RESEARCH EXPERIENCE

#### Research Assistant – Martian Meteorite Database

Oct 2016 – present

University of Nevada, Las Vegas; Dr. Arya Udry

Compiling a comprehensive martian meteorite database through intensive literature review

# NASA PGGURP Intern – Gale Crater Soil

May 2017 - Sept 2017

# **Geochemistry and Sedimentology**

Louisiana State University; Dr. Suniti Karunatillake

- Conducted geochemical, sedimentological, photo-analytical, and statistical analysis of Mars Science Laboratory and Mars Exploration Rover soil samples to investigate halogen distributions and surficial processes altering martian soil chemistry
- Compiled comprehensive Alpha Particle X-Ray Spectrometer (APXS), Mars Hand Lens Imager (MAHLI), and High Resolution Imaging Science Experiment (HiRISE) datasets
- Performed photo-analytical segmentation on Gale Crater soil samples using Mathematica
- Developed ArcGIS and Mathematica methodology for a LaSPACE REA-funded martian boulder distribution project
- Organized undergraduate research group meetings and lab social outings/activities

# **Undergraduate Researcher – Martian Shergottite Textural Analysis (Independent Research Project)**

May 2016 – Dec 2016

University of Nevada, Las Vegas; Dr. Arya Udry

- Conducted literature review on martian shergottites
- Conducted Crystal Size Distribution (CSD) analysis through the delineation of olivine grain boundaries using various computer programs
- Synthesized CSD results to create a 21-page senior thesis, conference poster, and PowerPoint presentation
- Presented poster at GSA 2016 Annual Meeting (see "poster presentations")

# **Undergraduate Researcher – Naturally Occurring** Asbestos in Southern NV (Independent Research Project)

Jan 2015 – Oct 2015

University of Nevada, Las Vegas; Dr. Brenda Buck

Filtered and mounted mineral particles from soil samples for SEM/EDS analysis

- Compiled and edited databases containing mineralogical data, particle measurements, and particle classifications for analyzed samples
- Presented poster at UNLV Fall 2015 Undergraduate Research Showcase (2<sup>nd</sup> place)

# **TEACHING EXPERIENCE**

Student Athlete Tutor Spring 2017

University of Nevada, Las Vegas; Academic Success Center

Tutored student athletes in introductory level geology and geography courses

# **Geomorphology Lab Teacher Assistant**

Jan 2016 – May 2016

University of Nevada, Las Vegas; Dr. Matthew Lachniet

- Assisted with teaching, setting-up the laboratory section, and proctoring tests
- Answered student questions and concerns

## **OTHER EXPERIENCE**

# Camp Counselor at Camp Bravo – Theater Arts Summer Camp

2013 - 2016 (summers)

Angelus Oaks, CA

- Supervised a group of 25 ten-year-old children and managed girls' sleeping cabin
- Helped organize, set-up, and run camp activities
- Guided campers through theatre and teamwork activities as well as the overall camp experience

# **Volunteer Intern with the USGS-WRD**

July 2014 – Oct 2014

Las Vegas, NV

Participated in basic field (water level measurements) and clerical activities

# **HONORS AND AWARDS**

#### Scholarships:

<ul><li>Millennium Scholarship (\$2,745, annual)</li></ul>	2013 - 2016
■ Anne Fenton Wyman (\$2,220)	2014 - 2016
■ Brenda French Scholarships (\$1,000)	2014 - 2015
<ul> <li>Douglas Orr Memorial Scholarship (\$530)</li> </ul>	Fall 2015
■ NSF EPSCoR UROP (\$4,500)	2015
UNLV Geosymposium Academic Achievement Award (\$1,000, Barrick Gold)	Spring 2016
1 <sup>st</sup> Place AEG Southern Nevada Section Student Night Poster Session (\$100)	Spring 2016
2 <sup>nd</sup> Place UNLV Undergraduate Research Showcase Poster Session (\$250)	Fall 2015
UNLV Dean's Honor List	2013 - 2016
Colorado College Dean's Honor List	2012 - 2013

## **PUBLISHED ABSTRACTS**

Rahib, R., **Laczniak, D. L.**, Combs, L. M., Udry, A. (2017, April) Insight into the martian interior using quantitative textural analyses of poikilitic shergottites. 12<sup>th</sup> Annual UNLV Geoscience Geosymposium (Las Vegas, NV; April 2017)

**Laczniak D.**, Combs L., Rahib R., and Udry A. (2016). Textural Analysis of Enriched Poikilitic Shergottites, *Geological Society of America* Abstracts with Programs, v. 48, n. 7, p. 227 (Denver, CO; September 2016)

#### POSTER PRESENTATIONS

Geological Society of America Annual Meeting

Textural Analysis of Enriched Poikilitic Shergottites

Denver, CO Fall 2016

UNLV Geosymposium/AEG Southern Nevada Student Night

 Human-induced seismicity in Oklahoma: An illustration of the relation between seismicity and injection wells and an analysis of infrastructure risk. (Received invitation to present at AEG Southern Nevada Section meeting)

Las Vegas, NV Spring 2016

UNLV Undergraduate Research Showcase

 Evaluating Naturally Occurring Asbestos in Desert Pavements from Las Vegas and Ivanpah Valleys Las Vegas, NV

Fall 2015

# UNIVERSITY SERVICE AND OUTREACH

## **Geosymposium Planning Committee**

Spring 2016

University of Nevada, Las Vegas

 Leadership position involving creative planning, budgeting, writing permit applications, t-shirt logo design, and various other organizational tasks

# Las Vegas Science and Technology Festival Volunteer

Spring 2016, 2017

Las Vegas, NV

- Supervised the UNLV Geoscience learning booth
- Guided young attendees through various earth and environmental exercises including mineral identification, planet puzzles, and the augmented reality topography sandbox

# **TECHNICAL SKILLS**

#### Computing:

- (Advanced) Microsoft Word, PowerPoint, Excel; Adobe Illustrator, Adobe Photoshop; Inkscape
- (Intermediate) ArcGIS/ArcMap; QGIS; GIMP; Mathematica; ImageJ; Mars Analyst's Notebook
- (Basic) Fortran 95; JMARS; ENVI

## Laboratory:

 Scanning Electron Microscopy with Energy Dispersive Spectroscopy (SEM-EDS); petrographic microscopy; electron microprobe (WDS point analysis); sample preparation; carbon-coating of samples

#### Other:

Public speaking; technical writing; database compilation

## **MEMBERSHIPS**

The Geological Society of America National Society of Collegiate Scholars 2016-present

2014 - present

# **REFERENCES**

**Dr. Arya Udry**, Asst. Professor of Geology University of Nevada, Las Vegas Las Vegas, NV (702) 895-1239; arya.udry@unlv.edu **Dr. Ganqing Jiang**, Professor of Geology University of Nevada, Las Vegas Las Vegas, NV (702) 895-2708; Ganqing.Jiang@unlv.edu

**Dr. Suniti Karunatillake**, Asst. Professor of Geology Louisiana State University Baton Rouge, LA (225) 578-3415; sunitiw@lsu.edu **Dr. Gabriel Judkins**, Asst. Geology Professor in Residence University of Nevada, Las Vegas Las Vegas, NV (702) 895-4302; Gabriel.Judkins@unlv.edu