Wren Raming

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EDUCATION

ARIZONA STATE UNIVERSITY
PHD Candidate
Expected 2022 | Tempe, AZ
Cum. GPA: 3.8 / 4.0

UNIVERSITY OF UTAH
BS in Geosciences
2012-2015 | Salt Lake City, UT
Conc. in Geology
Minor in Physics
Dean's List (All Semesters)
Cum. GPA: 3.8 / 4.0

UNIVERSITY OF UTAH
BS in Economics
2004-2009| Salt Lake City, UT
Cum. GPA: 3.5 / 4.0

COURSEWORK

GRADUATE
Geomorphology
Remote Sensing
Python For Graduate Research
Hydrology
Linear Regression Analysis

UNDERGRADUATE
Intro to Computing In Physics
Field Camp
Digital Mapping and ArcGIS
Sed. Strat.
Structural Geology
Differential Equations and Linear Algebra
Applied Statistics

SKILLS

PROGRAMMING
Competent:
Matlab• Python
Familiar:
C++ • R

GEO SPATIAL
Competent:
TopoToolbox• QGIS• ArcGIS
Familiar:
GDAL•ENVI

OTHER
Adobe Illustrator•WFR certified

RESEARCH EXPERIENCE

ARIZONA STATE UNIVERSITY | PhD
2016-2022 | Tempe, Az

- Research project focused on managing and understanding impacts of climate change in Mount Rainier National Park
- Developed and tested conceptual models for assessing the impact of aggradation on the Carbon River

GEOSCIENTIST IN THE PARK PROGRAM | Research Intern
Summer 2018 | Mount Rainier, Wa

- Research project focused on managing and understanding impacts of climate change in Mount Rainier National Park
- Developed and tested conceptual models for assessing the impact of aggradation on the Carbon River

JE FULLER HYDROLOGY AND GEOMORPHOLOGY | Research Intern
Summer 2017 | Tempe, Az

- Analyzed thresholds of motion for boulders and knickpoint retreat on tributaries of the Verde River, Arizona
- Employed Structure from Motion and drone mapping to obtain high resolution topography and orthoimages
- Used HEC-RAS and FaSTMECH to model a range of flood conditions and analyze the onset of boulder mobility

SPACE SCIENCE INSTITUTE | Research Intern
Summer 2015 | Boulder, CO

- Focused on imaging spectroscopy and remote sensing of playas and their potential as dust source hazards in the Western U.S. and Australia
- Conducted fieldwork with a ASD Fieldspec Spectroradiometer
- Digital mapping of minerals via multi-range spectral feature fitting in ENVI

UNIVERSITY OF UTAH | Undergraduate Research Assistant
2013-2015 | Salt Lake City, UT

- Utilized multi-spectral data sets and field data to identify both natural and anthropogenic influences on the extent of the Bonneville Salt Flats, UT

PUBLICATIONS

MANUSCRIPTS
Raming, L.W., Whipple, K.X. (2021). Limits on The Effectiveness of Waterfalls in Landscape Evolution *in prep*.

Raming, L.W., Whipple, K.X. (2021). Waterfalls of the Na Pali coast: The Role of Rock Mass Properties and Thresholds of Drainage Area in Limiting Signals of Sea-cliff Retreat. *in prep*.

Bowen, B., Kipnis, E., **Raming, L.W.**(2017).Temporal Dynamics of Flooding, Evaporation, and Desiccation Cycles and Observations of Salt Crust Area Change at the Bonneville Salt Flats, Utah *Geomorphology* 299, 1-11.

BOOK CHAPTERS

Jewell, P., Nelson, D., Bowen, B., and **Raming, L. W.** (2016). Insights into Lake Bonneville Using Remote Sensing and Digital Terrain Tools. In *Lake Bonneville: A Scientific Update* pp (598 - 616). Elsevier

CONFERENCE ABSTRACTS

Raming, L. W. , Zhiang, C., Keating, D., Whipple, K. X., Yager, E., Strauch, A. M., Das, J. (2020 December). Extreme Discharges and Thresholds of Boulder Mobility in Steep Mountainous Streams on Maui, Hawai'i. Poster at AGU Fall Meeting

Raming, L. W. , Whipple, K. X. (2020 October). Canyon formation on the Hawaiian Islands: Can a single threshold of river incision explain observed patterns of incision? Talk GSA Fall Meeting

Raming, L. W. , Whipple, K. X. (2019 December). Lithologic Controls on the Formation and Retreat of Waterfalls. Poster at AGU Fall Meeting

Whipple, K. X., Rossi, M.W., **Raming, L. W.** (2019 December). Threshold Processes in Fluvial Landscape Evolution (invited). Talk at AGU Fall Meeting

Raming, L. W. , Whipple, K. X. (2019 September). Knickpoints of Kaua'i, Hawai'i: Accelerated Incision or Lithological Control? Talk at GSA Fall Meeting

Raming, L. W. , Whipple, K. X. (2017 December). Thresholds and the Evolution of Bedrock Channels on the Hawaiian Islands. Poster presented at AGU Fall Meeting

Raming, L. W. , Farrand, W. H., & Bowen, B. B. (2015 December). Mineralogical composition and potential dust source of playas in the Western U.S. and Australia as remotely identified through imaging spectroscopy. Poster presented at AGU Fall Meeting

Raming, L. W. & Bowen, B. B. (2014 October). Spatiotemporal analyses of environmental conditions and surface processes at the Bonneville Salt Flats. Poster presented at GSA Annual Fall Meeting

AWARDS

FELLOWSHIPS

2020 SESE Summer Exploration Graduate Fellowship
2018 NSF Graduate Fellowship

HONORS

2019 - 2020 Graduate Excellence Award
2019 Distinguished Advisor Award
2018 - 2019 Graduate Excellence Award
2016 ASU SESE First Year Award
2015 U of U Geo. Dept. Excellence In Undergraduate Research Award

GRANTS

2019 GSA Graduate Student Research Grant
2019 ASU Graduate and Professional Student Association Research Grant
2015 University of Utah, Doelling Scholarship
2014 - 2015 University of Utah, Undergraduate Research Opportunity Award
2014 - 2015 University of Utah, GCSC Travel Grant
2014 - 2015 University of Utah, Mineralogical Society of Utah Scholarship
2013 - 2014 University of Utah, Ken and Nedra Bullock Keller Scholarship