Akshay Mehra

Graduate Student
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Education

Expected 2018	**Princeton University**, Princeton, NJ Ph.D., Geosciences Thesis: Multiscale methodologies, from drone derived aerial imagery to serial sectioning, to address geologic questions Advisor: Adam Maloof
2011	**Cornell University**, Ithaca, NY B.Arch. Thesis: Reclaiming the old Union Carbide factory site in Bhopal, India Advisors: Vincent Mulcahy and Mary Woods

Teaching Experience

All of the listed courses involve a significant fieldwork component consisting of a week-long trip to make observations for research projects (the locations of the fieldwork are in parentheses). As part of my teaching duties, I was responsible for preparing supplies and logistics and helping students with both data collection especially with drones, differential GPS, and surveying equipment and data analysis.

Fall 2016	Teaching Assistant	**GEO 201**: Measuring climate change: Methods in data analysis & scientific writing (Utah and New Mexico)
Spring 2016	Teaching Assistant	**GEO 370**: Sedimentology (Andros Island, The Bahamas)
Fall 2015	Teaching Assistant	**FRS 124**: State of the Earth: Shifts & cycles (France and Spain)
Fall 2014	Teaching Assistant	**GEO 201**: Measuring climate change: Methods in data analysis & scientific writing (Utah and Nevada)

Journal Articles in Review

1. **Mehra, A.** and Maloof, A.C. 2017, A multiscale approach reveals that Cloudina aggregates are detritus and not *in situ* reef constructions. *Proceedings of the National Academy of Sciences of the United States of America, in review.*

Conference Abstracts

2017 Maloof A.C. and **Mehra, A.**, Constraining the role of an Ediacaran biomineralizer using a multiscale methodology: *Geological Society of America Abstracts with Programs*, Vol. 49, No. 6, doi: 10.1130/abs/2017AM-304971.

2017 **Mehra, A.** and Maloof, A.C., Using serial grinding and imaging techniques to produce three-dimensional models of samples with weak density contrast: *Geological Society of America Abstracts with Programs*, Vol. 49, No. 6, doi: 10.1130/abs/2017AM-308006.

2016 **Mehra, A.** and Maloof, A.C., Digital reconstructions of Cloudina populations: an in-depth, three-dimensional study, Abstract B33A-0581 presented at 2016 Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.

2013 Maloof, A.C., Samuels, B., **Mehra, A.**, and Spatzier, A., An automated serial Grinding, Imaging and Reconstruction Instrument (GIRI) for digital modeling of samples with weak density contrasts: Abstract MR31A-2294 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.

Field Experience

2017	North Cascades, Washington, USA [2 weeks]	*Textural evidence for the presence of a fossilized magma chamber*
2017	Andros Island, The Bahamas [1 week]	*Morphology and hydrology of a tidal channel network*
2016	Labrador, Canada [1 week]	*Stratigraphic and environmental context of Cambrian Archaeocyathid reefs*
2015	Salient Mountain, Canada [6 weeks]	*Mapping, measuring, and sampling from a fossil bearing Ediacaran stromatolite reef system*
2014	Southern Namibia [8 weeks]	*Describing aggregates of Cloudina, one of the earliest biomineralizing organisms*

Professional Experience

2011 -2013 Situ Studio, Brooklyn, NY
Developed specifications for GIRI (Grinding, Imaging and Reconstruction Instrument), part of the new Digital Fossil Reconstruction Lab at Princeton University. Leveraged numerous architectural tools and methods to create visualizations and analysis for the Forensic Architecture project.

Awards and Honors

2017 Runner Up, AGU Data Visualization and Storytelling Contest
2017 Fan Favorite, Princeton Research Day
2016 Runner Up, AGU Data Visualization and Storytelling Contest
2016 Arnold Guyot Teaching Award 2016

University and Professional Service

2016 - 2018 Vice President, Graduate Student Government
2015 - 2016 President, Graduate Student Government