

NINA SCHULZE

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EDUCATION

The University of Southern Mississippi Fall 2016 – Spring 2018
Master of Science in Geological Oceanography

The University of Massachusetts Amherst Fall 2013 – Spring 2016
Bachelor of Science in Geology
Member of the Commonwealth Honors College
GPA: 3.8

Relevant Course Work: Geomorphology, Sedimentology, GIS and Spatial Analysis, Hydrogeology, Climatology, Mineralogy, Petrology, Geological Field Methods, Geological Mapping, History of the Earth, Structural Geology, Planetary Geology, Living on Earth: Fracking

WORK EXPERIENCE

Division of Marine Science - USM Fall 2016 – Spring 2018
Graduate Assistant at Stennis Space Center, MS

- Research the formation and evolution of Horn Island, MS
- Collect sediment cores on Horn Island using vibracores
- Obtain seismic profiles along the shoreline of Horn Island
- Understand the sediment source of Horn Island using geochemistry and mineralogical analyses
- Utilize Matlab to create stratigraphy and mineralogy plots
- Use ArcGIS to visualize sediment cores on a map and to incorporate Horn Island into the larger system
- Teach geological oceanography laboratory classes

Department of Geosciences – UMass Amherst Fall 2014 – Spring 2016
Research Assistant

- Synthesized Honors Thesis: ‘Sedimentological signatures of regional seismicity in western Shikoku and Eastern Kyushu, Japan’
- Examined sediment core stratigraphy
- Dated organic material according to the C-14 method
- Operated the Itrax X-ray fluorescence core scanner to obtain mineralogical data
- Used Matlab to plot and analyze XRF and stratigraphy data
- Calculated loss on ignition to determine amount of organic matter in sediments
- Used Geotek to collect high-definition photographs of cores

Department of Geology – Amherst College

June 2015 – September 2015

Research Assistant and Mentor

- Taught Amherst College students how to carry out loss on ignition calculations
- Analyzed the mercury content of sediment from the Oxbow Lake, MA
- Measured C:N:P ratios for the sediment
- Scanned cores on the Itrax X-ray Fluorescence Core Scanner to obtain mineralogical data
- Contributed to poster of the geological history of the Oxbow Lake that is displayed in Amherst College's Museum of Natural History

SKILLS & AWARDS

Skills

- Proficient in Matlab and ArcGIS
- Fluent in English and German
- Tutored and mentored students in Geology and German
- Participated in field work and gained experience in taking gravity cores and suspended sediment samples
- Experience in handling ADCP and CTD equipment, as well as using a multi-corer to collect sediment cores
- Partook in educational USM cruise to examine changes in oceanography at the Deepwater Horizon Site

Awards

- Recipient of the Dean's Scholarship at the University of Massachusetts Amherst (\$2000 per year)
- Written proposals and received the H.T.U. Smith Memorial Prize (\$660) and Honors College Research Grant (\$1030) for research

VOLUNTEERING

Green Mountain Club – Long Trail Patrol, VT

Summer 2014

Long Trail Patrol Worker

- Repaired and maintained hiking trails with rocks found off the trail
- Ensuring safety of hikers and advising them on the weather and resources

Lexington Visitors Center, MA

Spring 2010 – Spring 2013

Salesperson and Tourist Advisor

- Taught visitors of Lexington about the local history of the Revolutionary War
- Sold merchandise and managed gift shop

PRESENTATIONS & PUBLICATIONS

- Schulze, N., Woodruff, J., Kanamaru, K., Baranes, H. (2016). *Sedimentological Signatures of Regional Seismicity in Western Shikoku and Eastern Kyushu, Japan*. Northeastern Annual Meeting of the Geological Society of America (March 2016)