Jonathan G. Bridgeman

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EDUCATION

M.S., Earth and Environmental Science

May 2018

Tulane University, New Orleans, LA

Thesis: "Understanding Mississippi Delta Subsidence through Stratigraphic and Geotechnical Analysis of a Continuous Holocene Core at a Subsidence Superstation"

GPA: 3.81

B.A., Earth and Environmental Science

June 2014

University of California, Los Angeles, CA

EXPERIENCE

UNAVCO

Geologistics Tech Intern

June 2018-present

Boulder, CO

- Created and implemented workflows for data acquisition units (remote control planes, drones) and processed imagery for Structure-from-Motion
- Surveyed with terrestrial LiDAR and Trimble RTK systems
- Conducted drone aerial surveys and attained a FAA Drone Pilot License
- Built and repaired custom GPS stations for long term deployment on projects which monitor continental plate motion, fault movement, and volcanic activity

Coastal Restoration Intern

May 2017- June 2018

Louisiana Coastal Protection and Restoration Authority

New Orleans, LA

- Conducted restoration site visits and mapped wetland growth using Trimble GPS units
- Monitored project data (water, soil, and vegetation) for quality and overall progress
- Wrote short-form project reports from technical documents for local and state officials

Graduate Research Assistant

January 2016- June 2018

Tulane University, Department of Earth and Environmental Science

New Orleans, LA

- Designed and safely led a drilling field exploration campaign across the Mississippi River Delta to better understand delta plain evolution and the underlying sediment
- Sampled, identified, and logged soil cores (USCS and USDA) and vegetation samples
- Analyzed soil (mineral and organic) for soil index and geotechnical properties
- Managed laboratory equipment and chemicals, completing safety and compliance inspections
- Collaborated with geophysicists, engineers, and geologists to connect geologic rates of land subsidence with modern rates in the Mississippi River Delta
- Presented research and the implications for coastal resilience to local stakeholders and state officials, as well as at regional and national conferences in 2016 and 2017

Field Assistant

May 2015 – June 2018

Tulane University

New Orleans, LA

- Conducted surface and groundwater sampling, soil monitoring, and vegetation surveys
- Collected and prepared geologic dating samples that were highly prone to contamination
- Repaired and monitored GPS and fiberoptic strainmeter electronics in the field
- Analyzed seismic waves and interpreted regional subsurface and crustal density

Teaching Assistant

August 2015- December 2015

Tulane University, Department of Earth and Environmental Science

New Orleans, LA

• Taught Earth as a Living Planet laboratory sessions to 50 undergraduate students, connecting the actions of everyday life to environmental impact, sea level rise, and the health of our planet

Research Assistant May 2014-June 2015

University of California, Los Angeles, SPIN Lab

Los Angeles, CA

- Fabricated a 2m tall rapidly rotating fluid convection experiment (NoMag)
- Designed and installed a video recording system for NoMag
- Created educational outreach videos of the lab's fluid dynamics experiments explaining geophysics at both technical and non-technical levels (Youtube: *Record Player Fluid Dynamics*)

Wastewater Intern

June 2013-September 2013

Montecito Sanitation District

Santa Barbara, CA

- Created a public awareness campaign and outreach material for Fats, Oils, and Grease
- Analyzed plant waste data to find harmful bacteria growth within the wastewater system

Environmental Site Assessment Intern

June 2012-September 2012

AEI Consultants

Los Angeles, CA

- Researched and prepared historical photographs and UST details for Phase 1 reports
- Submitted FOIA requests and retrieved site information for environmental site assessments
- Compiled FOIA request information for West Coast agencies into an online database

SKILLS AND TRAINING

Fieldwork: Proficient in soil sampling (hand auger, geoprobe, and vibracore), mineral and organic sediment description and identification (USDA and USCS), surface water sampling techniques, Trimble RTK systems, familiar with identification of salt and freshwater wetland plants, TLS (LiDAR) systems including Riegl VZ-400 and Leica Scan Station C10

Laboratory: Proficient in Atterberg Limits and 1-D consolidation testing, soil index properties, bulk density, water and organic content testing, stable isotope sample preparation, radiocarbon and optically stimulated luminescence sample preparation, Malvern Mastersizer 3000 grain-size analysis, familiar with Geotek Core Logger

Computer Skills: Proficient in Matlab, Adobe Creative Suite, Google Earth, Microsoft Office, familiar with ArcGIS, ENVI, Petrel, Kingdom, Python, R

LEADERSHIP AND COMMUNITY SERVICE

Department Student-Faculty Liaison

New Orleans Geological Society Super Science Saturday

American Association of Petroleum Geologists at Tulane

Boys at Tulane in STEM Programs

Afterschool activities at Castle Rock Community Church

Graduate Student Liaison, 2017-2018

Student Volunteer, 2016-2017

Student Volunteer, 2016-2017

Instructor, 2016-2017

LICENSES, AWARDS, AND SCHOLARSHIPS

FAA sUAS (Drone) Pilot License, Four-year Letterman (2010-2014), Student Athlete Leadership Award (2014), Don Shepard Postgraduate Scholarship (2014), Northwestern Mutual Inspiring Potential Scholarship (2014), Coastal Science Assistantship Program Grant Recipient (2016)