

JACOB BURSTEIN

(404) 660-5006 | jtburstein@utexas.edu

Highly motivated Master's student studying and applying marine geology and geophysics. Experienced in the acquisition, processing, and interpretation of numerous geological and geophysical tools (e.g. cores and logs, multibeam bathymetry, seismic reflection). Interested in integrating multiple datasets for sequence stratigraphic interpretation, potential geohazards identification, as well as programming seamless geoprocessing schemes for GIS applications.

EDUCATION

Master of Science, Geosciences | Expected Graduation May 2021

University of Texas at Austin | Austin, TX

- Advisors: Dr. Sean P.S. Gulick, Dr. John A. Goff
- GPA: 3.872/4.0
- Relevant Coursework – Clastic Depositional Systems, Clastic and Carbonate Sequence Stratigraphy, Three-Dimensional Stratigraphy, ArcPy, Python Programming
- Thesis – Holocene Barrier Island Evolution on the East Texas Shelf: Geological and Geophysical Tracking of Paleoshorelines

Bachelor of Science, Geophysics, Magna Cum Laude | May 2019

University of South Carolina | Columbia, SC

- GPA: 3.846/4.0
 - Relevant Coursework – Marine Geophysics, Seismic Data Processing, Seismic Interpretation, Stratigraphy and Sedimentary Basins, Python Programming, Earth Science Numerical Modelling, Seismology, Calculus I-IV, Partial Differential Equations.
 - Research Projects – Marine geophysical data integration and spatial analyses for locating favorable areas for wind energy development offshore SC; Ground-motion quantification for NHRA Dragracing Finals
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PROFESSIONAL EXPERIENCE

ExxonMobil Geoscience Intern | June 2020 – August 2020

Geophysical Operations, ExxonMobil | Houston, TX

- Developed OBN survey design workflow utilizing ray tracing methods in Petrel software
- Ray tracing modeling carried out for complex subsalt and channel-levee depositional systems
- Displayed efficiency and flexibility amid shortened timeframe and COVID-19 relocations

Graduate Research Assistant | August 2019 - Present

University of Texas Institute for Geophysics (UTIG) | Austin, TX

- High-frequency seismic data processing and seismic stratigraphic interpretation in Landmark Solutions software
- Integrate lithological cores with seismic stratigraphic interpretations for analyses of GOM paleoshoreline evolution

Seafloor Mapping Intern | August 6 – August 20, 2018

Ocean Exploration Trust (OET) | British Columbia, Canada to Honolulu, HI, USA

- Assisted mapping team aboard the *E/V Nautilus* by acquiring, processing, and visualizing bathymetry and CHIRP SBP data
- Acquired world's most current multibeam bathymetric survey offshore Kilauea lava ocean entry points

Undergraduate Research Assistant/GIS Technician | January 2018 – December 2018

Earth Sciences and Resources Institute (ESRI-SC), University of South Carolina | Columbia, SC

- Integrated and spatially analyzed multibeam bathymetry, CHIRP, and groundtruthed datasets to identify favorable locations offshore South Carolina for wind energy development
- Created seamless 3D surface and subsurface models using OpendTect, ArcGIS, QPS Qimera
- Deliverables provided to the Bureau of Ocean Energy Management, and research presented at the 2018 AGU Fall Meeting.

Research Experience for Undergraduates (REU) Intern | June 5 – August 4, 2017

National Science Foundation, University of Hawai'i at Mānoa | Honolulu, HI

- Employed GIS techniques to project future shoreline change under increasing sea-level rise scenarios on the North Shore of O'ahu, HI, and evaluated danger to known Green Sea Turtle nesting locations.
- Original research project presented at the 2017 AGU Fall Meeting.

SKILLS

Computer Programming – Python | Linux | Matlab | Generic Mapping Tools (GMT) | Microsoft Office
Seismic Software – Petrel | Landmark ProMax | Landmark Decision Desktop | OpendTect | Kingdom Suite
Hydrographic Software – Hypack | Seafloor Information System (SIS) | QPS Qimera | SounderSuite
Geospatial Software – ArcGIS | QGIS | GRASS | PCI Geomatica

HONORS AND AWARDS

Joseph R. LeConte Outstanding Senior Award in Earth and Ocean Sciences | April 2019
United States Geospatial Intelligence Foundation Undergraduate Scholarship | August 2018
College of Arts and Sciences University Research Enhancement Program Grant | January 2018
Discovery USC 2018: First Place Poster Winner | March 2018
Joseph R. LeConte Outstanding Junior Award in Earth and Ocean Sciences | April 2018
American Association of Petroleum Geologists: L. Austin Weeks Scholarship | April 2017
Society for Mining, Metallurgy, and Exploration Scholarship | April 2017
(2x) Stephen Taber School of the Earth, Ocean & Environment Scholarship | April 2017, 2018
USC Dean's List (7/8 Semesters), USC President's List (3/8 Semesters)

EDUCATIONAL OUTREACH

Guest Lecturer | October 4, 2018
Hidden Valley High School | Grants Pass, Oregon

- Invited by high school oceanography teacher to lead a virtual lecture to three classes focused on marine geology
- Created, presented, and lead lecture covering Earth's internal layers, plate tectonics, and opportunities in Geoscience

AFFILIATIONS

American Association of Petroleum Geologists
American Geophysical Union
Society of Exploration Geophysicists
The Hydrographic Society of America
United States Geospatial Intelligence Foundation

ABSTRACTS

1. **Burstein, J.T.**, Knapp, C.C., Brantley, D., Battista, B., Herrin, G.T., Stone, J. (2018), Marine Geophysical Data Integration and Spatial Analyses for Locating Favorable Locations for Wind Energy Development Offshore South Carolina, Abstract (GC23D-1233) presented at 2018 AGU Fall Meeting, Washington, D.C., 10-14 Dec.
2. **Burstein, J.T.**, Fletcher, C.H., Dominique Tavares, K. (2017), Critical Beach Habitat for Hawaiian Green Sea Turtle Endangered Before Mid-Century, Abstract (GC23B-1648) presented at 2017 AGU Fall Meeting, New Orleans, LA, 11-15 Dec.