

AMANDA SYAMSUL

Santa Cruz, CA • 206-915-1891 • nasa@ucsc.edu • <https://amandasyamsul.github.io/>

EDUCATION

- **M.S. in Earth & Planetary Sciences** Sept 2023 - present
University of California, Santa Cruz, CA
Advisor: Prof. Emily Brodsky & Prof. Tamara Pico
- **BSc. in Geophysics with Honors, Minor in Applied Math** (major GPA: 3.82) 2019 - 2023
University of Washington, Seattle, WA
Advisor: Prof. Brad Lipovsky
***Awarded Douglas Merrill Prize for Excellence**

PROFESSIONAL SKILLS

Specialized coursework: Marine geophysics, Reflection seismology, Geomechanics, GIS, Slope stability, Geologic hazards assessment, Signal processing, Sea level modeling, Crustal deformation, Field remote sensing

Computer Skills: Python, R, MATLAB, ArcGIS, ENVI, RiCSAN PRO, MetashapePRO, Adobe Suite

WORK EXPERIENCE

- **Teaching Assistant — UC Santa Cruz** Jan 2025 - present
Teach undergraduate-level sections on sea level modeling and geologic hazards, specializing in MATLAB programming, geologic reports, technical writing, and hazards assessments
- **Graduate Researcher — UC Santa Cruz** Sept 2023 - Dec 2025
Conduct research on seismic expressions of climate variability through climate-solid Earth interactions across timescales and phenomena using geophysical methods such as signal processing, seismic interpretations, sea level modeling, remote sensing, and data analysis
- **Scientific Outreach — Pacific Northwest Seismic Network** June 2022 - June 2023
Facilitate earthquake hazard discussions with local communities, host visitors in the seismology lab, communicate information on preparedness and risk for significant earthquakes in the Pacific Northwest, prepare outreach materials for congressional district meetings on earthquake early warning, social media management
- **Office Operations Team — Genome Sciences UW** Mar 2020 - June 2022
Manage front reception, e-procurement for lab apparatus and materials, records retention
- **Student Assistant — UW Surplus Warehouse** Feb - Apr 2020
Organize surplus and data entry, remove hard drives from computers and switches, provide customer service in surplus store
- **Pallanck Lab Student Assistant — Genome Sciences UW** Nov 2019 - June 2022
Assist researchers by preparing materials for *D. melanogaster* experiments and maintain full stocks of clean lab apparatus

INTERNSHIPS

- **Matanuska Glacier — Glacier View, AK** June - Sept 2021
Guide tourists and researchers on glacial hikes while teaching them about glacial features and history, carry out trail work to maintain a safe route, conduct routine path checks, provide first aid during emergencies and injuries

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AWARDS

- Bay Area Geophysical Society's Louise 'Lu' Pellerin Memorial Scholarship 2025
- Douglas Merrill Prize for Excellence in Geological Sciences 2023
- Afton Woolley Crooks & James William Crooks Endowed Scholarship in Geological Sciences 2022
- Julian D. and Marajane Barksdale Endowed Fund and the Joseph A. Vance Endowed Student Support Fund 2022

RESEARCH PRESENTATIONS (* = invited)

- ***Syamsul A.**, Brodsky E., et al. — Taking the Temperature of the Ocean from Pressure: Using Ocean Bottom Pressure Measurements of Internal Waves in the South China Sea to Track the Annual Cycle of Sea State Oral presentation at: **Bay Area Geophysical Society Seminar; Berkeley, CA**
- **Syamsul A.**, Brodsky E., et al. — Taking the Temperature of the Ocean from Pressure: Using Ocean Bottom Pressure Measurements of Internal Waves in the South China Sea to Track the Annual Cycle of Sea State Oral presentation at: **2025 Seismological Society of America; Denver, CO**
- **Syamsul A.**, Pico T., et al.. — Glacial Isostatic Adjustment on the Queen Charlotte Fault Oral presentation at: **2025 Glacial Isostatic Adjustment Workshop; Sydney B.C.**
- **Syamsul A.**, Brodsky E., Davis K., Chrume H. — 10-year study on Internal Waves in the South China Sea Oral presentation at: **2024 American Geophysical Union Fall Conference; Washington D.C.**
- **Syamsul A.**, Lipovsky B.P. — Surface Load Induced Earthquakes. Oral presentation at: **2022 American Geophysical Union Fall Conference; Chicago, IL**
- **Syamsul A.**, Lipovsky B.P. — A global correlation between surface mass loading and seismic activity. Poster presentation at: **2021 American Geophysical Union Fall Conference; New Orleans, LA**

PUBLICATIONS

Syamsul A., Lipovsky B.P. (2025, In review). Surface Load Induced Earthquakes. *Geophysical Journal International*

Syamsul A., Brodsky E.E, Crume H.R., Williams E.F., Davis K.A., Wang S., Hsu S., Tan S. (2025, In review). Taking the Temperature of the Ocean from Pressure: Using Ocean Bottom Pressure Measurements of Internal Waves in the South China Sea to Track the Annual Cycle of Sea State. *Geophysical Research Letters*

SERVICE AND OUTREACH

- **Surfrider Blue Water Taskforce** — Santa Cruz, CA 2026 - present
 - Collect water samples from local beaches to measure fecal indicator bacteria levels and compare them to water quality standards set to protect public health
- **Shared Adventures** — Santa Cruz, CA 2023 - 2025
 - Teach and belay climbers with disabilities at Pacific Edge climbing gym
- **Outdoors for All Ski Chaperone** — Snoqualmie, WA 2023-2024
 - Chaperone athletes with physical and/or mental disabilities by advocating for their specific needs, and physically assisting them when required
- **College of the Environment Student Advisory Council for Dean's Office** 2022-2023
 - Undergraduate representative for the Department of Earth and Space Sciences

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- Provide communication pathways between students and the Dean's Office, with recommendations on college-level budgets, new initiatives, policies, admissions, curriculum, and DEI

- **Rockin' Out Summer Camp** — Seattle, WA *July 2022*
 - Host summer camp for K-12 students with Autism
 - Teach lessons and run hands-on demos on Earth and Space Sciences topics
- **Weekly mutual aid for the unhoused community** — Seattle, WA *2022-2022*
 - Organize, prepare, and distribute home-cooked meals, sanitation supplies, and community needs to local unhoused communities in the university district
- **Weekly Education Program** — Kuala Lumpur and Seremban, Malaysia *2018-2019*
 - Create syllabus and teaching materials for young Rohingya refugees, fundraise for their meals, teach weekly Math, Science, and Arabic classes
 - Develop learning plan and teach local 5-9 year olds to read
- **Construction of Water System for Indigenous Village** — Selangor, Malaysia *2018*
 - Transport 30-ft long water pipes weighing over 600 lbs. through forest for water system construction
- **Healthcare and Housing Project** — Kampung Chumnik, Cambodia *2017-2018*
 - Team leader in charge of planning and delegating tasks
 - Organize year-long fundraising activities for housing construction in Chumnik Village
 - Distribute medication and monetary aid to villagers
 - Assist visiting medical professionals in treating villagers