

Jacqueline Singer

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EDUCATION

- Queens College, MA in Geological & Environmental Sciences**, Flushing, NY Fall 2021-Present
- Graduate GPA: 3.96/4.0
- Queens College, non-matriculating undergraduate**, Flushing, NY Spring 2020-Spring 2021
- GPA: 3.892/4.0
 - Provost scholar
- Colgate University, Bachelor of Arts**, Hamilton, NY Aug 2011-May 2015
- Majors: Russian & Eurasian Studies and Political Science
 - Dean's Award for Academic Excellence Spring/Fall 2012, Spring 2013, Fall 2014, Spring 2015
 - Academic honors: Cum Laude and member of Pi Sigma Alpha, the national political science honor society
 - President of the Russian Club, Tutor for local elementary school, Marketing Intern for Athletics Department

ENVIRONMENTAL SCIENCE WORK EXPERIENCE

- Dr. Dax Soule's Lab**, Research Assistant, Queens College, Flushing, NY Jan 2022-Present
- Examine 1 year of hydrophone data from the Bransfield Strait, Antarctica using IDL software to view the spectrograms
 - Identify and geolocate earthquakes, icequakes, and mammal signals in the Bransfield Strait dataset
 - Conduct statistical analysis and visualizations in JupyterLab
 - Participate in a directed study at Columbia University by taking a graduate course on cloud computing in Earth Sciences
 - Went on a 6-day research cruise to Axial Seamount to deploy seismic equipment
 - Create video content for collaboration with PBS
- Queens College**, Lab Instructor, Flushing, NY Fall 2021-Present
- Instructor for ENSCI 99, ENSCI 100, GEO 101 labs
 - Teach fundamentals of geologic processes and major environmental issues
 - Develop students' ability to use Microsoft Excel and interpret scientific data
- Dr. Chuixiang Yi's Lab**, Research Assistant, Queens College, Flushing, NY May 2020-Dec 2021
- Climate Modeling Project
 - Adapt Sabot 2019 atmospheric model using python to get stomatal conductance data for Park Falls, WI. Work conducted on a remote Linux computer
 - Use measured atmospheric data to compare stomatal conductance to various climate parameters, specifically vapor pressure deficit and mix-layer depth
 - Use R software to process data, run statistical analysis and create data visualization
 - Tree-Ring Project:
 - Conducted individual research focusing on tree mortality utilizing CRU climate data and tree ring data
 - Analyzed how climate change has impacted tree mortality in the United States
 - Wrote code for data extraction and statistical analysis in R software and MatLAB

ADDITIONAL SKILLS

- Proficient in Russian
- Taking a course at Columbia University on how to use Unix, Python, Pandas, Xarray, Numpy, Matplotlib, Cartopy in JupyterLab

PUBLICATIONS/PRESENTATIONS

- Lauren Schmahl, Miguel Castillo, Jacqueline Singer, R. Dziak W.S.D. Wilcock, Javier Almendros, Dax Soule (2022), Initial Earthquake Location Information Derived from Hydrophones Located in the Bransfield Strain, Antarctica, Abstract ID 3269 present at 2021 OSM Meeting.
- Zhenkun Tian, Chuixiang Yi, Yingying Fu, Jacqueline Singer, Qin Zhang. Spatiotemporal Analysis of Weather Effects on COVID-19 Pandemic Transmissions in Select US Counties. *Journal of Health and Environmental Research*. Vol. 6, No. 4, 2020, pp. 104-113. doi: 10.11648/j.jher.20200604.11
- Michelle Park, Jacqueline Singer, Lexi Christensen, Zhenkun Tian, Chuixiang Yi (2020), Characteristics of climate-induced tree mortality in the US seven ecoregions, Abstract NH023-0015 presented at 2020 AGU Fall Meeting, 1-17 Dec.