Brian Bagley

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Portfolio: bagl0025.github.io/portfolio

SUMMARY

Full Stack Developer and U.S. Navy veteran with a background in geophysics, research, and scientific computing. Nine years experience managing the X-ray Computed Tomography Lab, mentoring students, and presenting complex topics to diverse audiences. Spent the past year working as a python developer on a team at the University of Minnesota providing support to researchers at NASA and Ohio State University. Highly organized, self-motivated developer seeking a position that allows me to use my programming skills and scientific background.

EXPERIENCE

University of Minnesota, Polar Geospatial Center April 2021 – March 2022
Geospatial Developer St. Paul, MN

- Developed a Python program to check daily data ingest for priority satellite imagery orders. https://github.com/bagl0025/Priority_orders
- Collaborated with research groups at NASA to create mosaics from satellite imagery to be used in a machine learning project to search Earth for impact craters.
- Developed digital elevation models using the Blue Waters petascale supercomputer at the National Center for Supercomputing Applications.
- Worked with a 5 person developer team to maintain and create Python code used to process satellite imagery.
- Oversaw the daily flow of 10s of Terabytes of satellite data from Polar Geospatial Center to National Center for Supercomputing Applications and NASA Center for Climate Simulation.

University of Minnesota March 2012 – April 2021
Research Associate Minneapolis, MN

- Managed the X-ray Computed Tomography Lab located in the Department of Earth and Environmental Sciences used by universities nationwide.
- Created image analysis techniques using Matlab and Python that allowed researchers and students to complete innovative research.
- Authored and Co-Authored over 20 peer-reviewed publications and conference presentations.
- Mentored to students and postdocs allowing them to accomplish their research goals and operate equipment independently.

Pennsylvania State University June 2011 – March 2012
Postdoctoral Scholar State College, PA

- Analyzed and maintained the 10 station seismic network operated by Pennsylvania State University.
- Investigated seismic anisotropy in east Africa using custom programs written in C and Matlab.

- Earned a position on the 2011 United States Antarctic Program field team that serviced 35 seismic stations throughout west Antarctica.

Research Publications
https://scholar.google.com/citations?user=cZWoNSgAAAAJ&hl=en&authuser=1

TECHNICAL SKILLS
Python, C, Matlab, Fortran, Bash, Linux, JavaScript, jQuery, HTML5, CSS, Node.js, Express.js, MySQL, NoSQL, React.

EDUCATION
University of Minnesota, Minneapolis, MN
Full Stack Web Development Certificate

University of Minnesota, Minneapolis, MN
Ph.D. Geophysics

Texas A&M University, College Station, TX
B.S Geophysics – Magna Cum Laude and Undergraduate Research Scholar
Minors in Geology and Mathematics