Nash Keyes

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RESEARCH

Postgraduate Associate, Yale Department of Earth & Planetary Sciences: September 2021 – May 2022
- Continued research with Dr. John Wettlaufer in Earth & Planetary Sciences
- Stochastic resonance modeling of paleoclimate glacial cycle data

Student Researcher, Yale Department of Earth & Planetary Sciences: June – July 2021
- Summer research with Dr. Mary-Louise Timmermans, professor of Earth & Planetary Sciences
- Arctic Ocean temperature and salinity data analysis using information entropy to develop climate model fitness metrics

Student Researcher, Yale Department of Applied Mathematics: January 2020 – May 2021
- Senior thesis research with Dr. John Wettlaufer, professor of Applied Mathematics and Earth & Planetary Sciences
- Multifractal and coupling analysis on EPICA ice core data in MATLAB using a stochastic differential equation model
- Funded by the Karen L. Von Damm Fellowship for Earth & Planetary Sciences

Study-Abroad Researcher, SIT Iceland Program: June – July 2019
- Studied renewable energy technology, economics, and social impact in Iceland through School for International Training (SIT)
- Research project on impacts of warming-induced glacial melt and sediment concentration on hydropower in Iceland

Summer Intern, NASA Goddard Space Flight Center: June – August 2018
- Research with Dr. Dongliang Wu, project scientist in GSFC Earth Sciences division
- Analyzed large image dataset from Deep Space Climate Observatory in Python to quantify impact of solar eclipses on insolation

Summer Intern, Ohio State University Physics Department: June – August 2015, May – June 2016
- Worked with Dr. Amy Connolly on the Antarctic Impulsive Transient Array (ANITA) neutrino radio-emission observation probe
- Wrote code to screen out anthropogenic radio interference, soldered hardware pieces, improved collaboration's website design

ADVOCACY & OUTREACH

Applied Mathematics Department Student Advisory Committee: 2018 – 2021
- Founding member of the committee, which fosters community & provides peer advising for Applied Math undergraduates
- Did outreach, organized social events, mentored younger students, improved website and documentation

Yale Office of LGBTQ Resources: 2018 – 2020
- LGBTQ Office staffer, and President of Trans@Yale (undergraduate organization for transgender & nonbinary students)
- Did outreach & support for students, maintained the Office space, hosted community events, planned rallies with local organizers
- Co-founded Trans Community Lunch program at the New Haven Pride Center, supported by Yale Wellness Grants

EDUCATION

Yale University, May 2021
- B.A. in Applied Mathematics, with concentration in Earth & Planetary Sciences
- Relevant coursework: Geophysical Fluid Dynamics | Physics of Weather & Climate | Science of Complex Systems | Applied Numerical Methods for Differential Equations | Ordinary & Partial Differential Equations | Physical Oceanography | Probability Theory | Data Analysis | Geographic Information Systems | Fundamentals of Physics | Discrete Mathematics | Data Structures & Programming Techniques | Vector Calculus & Linear Algebra | Global Warming: Climate Physics

SKILLS

- Extensive experience with MATLAB and Python programming for applied mathematics and climate research
- Familiar with R, C, C++, HTML/CSS, JavaScript, Java, SQL, Mathematica, and ArcGIS Pro
- Background in managing and teamworking in complex team projects
- Experience with a range of power tools, hardware parts, and Autodesk Inventor CAD
- Skill with Windows & Microsoft Office; familiarity with Mac, Linux & command line