NATASHA SEKHON, PHD

Climate, Cave & Data Scientist

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📍 Providence, RI

EXPERIENCE

Voss & Presidential Postdoctoral Fellow
Brown University

📅 September 2021 – Ongoing   📍 Providence, RI

- Conversion from raw climate data parameters to analysis usable formats. With a focus on ocean-atmospheric processes (ENSO, floods, and droughts) impacting tropical islands in the western Pacific.
- Carrying out statistical analyses to discern climate change trends.
- Navigating and collaborating with UNESCO's World Heritage Site staff and local government units in Palawan, Philippines to monitor caves in order to better understand groundwater properties.
- Constructing and teaching a class dedicated towards historical climatology and global climate change. Mentoring students in the scientific method from critical thinking, clear communication, coding, and writing scientific paper skills.

Visiting Scientist
Massachusetts Institute of Technology

📅 November 2021 – Ongoing   📍 Cambridge, MA

- Conducting detail oriented lab work in class-1000 cleanroom used for processing samples for U-Th geochronology in cave deposits.

Graduate Research Assistant
The University of Texas

📅 September 2016 – August 2021   📍 Austin, TX

- Created a peak counting algorithm for calculating stalagmite ages and separating signal from background noise.
- Researched on the evolution of the North American Monsoon over the last 10,000 years and conducted analyses to understand its variation.
- Principal investigator for field work in southeastern New Mexico to monitor contemporary hydrology in and above caves with National Forest Service.

SYNERGISTIC ACTIVITIES

📄 Journal Articles
- Sekhon, N., David, C. P. C., Geronia, M. C. M., Custado, M. J. G., & Ibarra, D. E. (2022). Investigating the response of hydrological processes to el niño events using a 100-year dataset from the western pacific ocean. *Journal of Hydrology: Regional Studies*, *42*.
- Sekhon, N., Novello, V. F., Cruz, F. W., Wortham, B. E., Ribeiro, T. G., & Breeckerr, D. O. (2021). Diurnal to seasonal ventilation in brazilian caves. *Global and Planetary Change*, *197*, 327–344.

👥 Latest Conference Proceedings
- Sekhon, N. (2022). Understanding ENSO in the Philippines, Tuguegarao City Museum, Philippines.
- Sekhon, N., Gao, A., Partin, J. W., Mallick, S., & Ibarra, D. E. (2022). In-situ trace element analyses of a speleothem from the tropics to track paleoflood events through the holocene, KR9 Meeting.

EDUCATION

Ph.D. in Geological Sciences
The University of Texas at Austin

📅 August 2021

M.S. in Geological Sciences
The University of Texas at Austin

📅 August 2016

B.S. (Honors) in Earth System Sciences
University of California, Irvine

📅 August 2014

STRENGTHS

Regression analysis · Hypothesis testing · Time series analysis · Data mining · Multivariate analysis · Data visualization

Python · mySQL · ArcGIS · MS Office · LaTeX · Illustrator · Photoshop · Matlab · Terminal · Detail Oriented · Critical Thinker

Grant + academic writing · Edit + review papers · Public Speaking · Community Engagement

LANGUAGES

English
Hindi
French
Spanish

MEDIA COVERAGE

Today @Brown
Postdoctoral Excellence Awards Announced

AWARDS

🏆 **NCKRI 2021-22**
National Cave and Karst Research Institute Seed Grant