

Member Spotlight

A monthly highlight featuring an ASEG member. All past member spotlights can be found in our newsletter [archive](#).



We welcome **Aditya Priyadarshi** under the spotlight in this issue as he shares his enlightening story!

Aditya is a PhD candidate of Exploration Geophysics at Curtin University.

I hold a BS-MS dual degree in Physics from the Indian Institute of Science Education and Research (IISER) Kolkata. Prior to joining Curtin University, I worked as a Junior Research Fellow at the Aryabhata Research Institute of Observational Sciences (ARIES), Nainital, where I contributed to projects involving observational science and data analysis. Currently, my research is focused on utilizing distributed acoustic sensing (DAS) data to model the temporal variations in seismic traveltimes and amplitudes caused by CO₂ injection. By combining numerical simulations with field data, my goal is to enhance the characterization and monitoring of CO₂ plumes in carbon capture and storage (CCS) systems. Through this work, I aim to improve the efficiency and reliability of monitoring methods, contributing to more effective CCS strategies.

1. For how long have you been a geophysicist?

I began my journey into geophysics approximately four months ago when I transitioned from physics to seismic research.

2. What do you like most about being a geophysicist?

The opportunity to blend physics, technology, and environmental science to address real-world problems excites me the most.

3. If you weren't a geophysicist, what would you be?

Probably a career in data science and finance - something that still allows me to solve complex problems.

4. What is your best interview tip?

Be original and curious in answering questions.

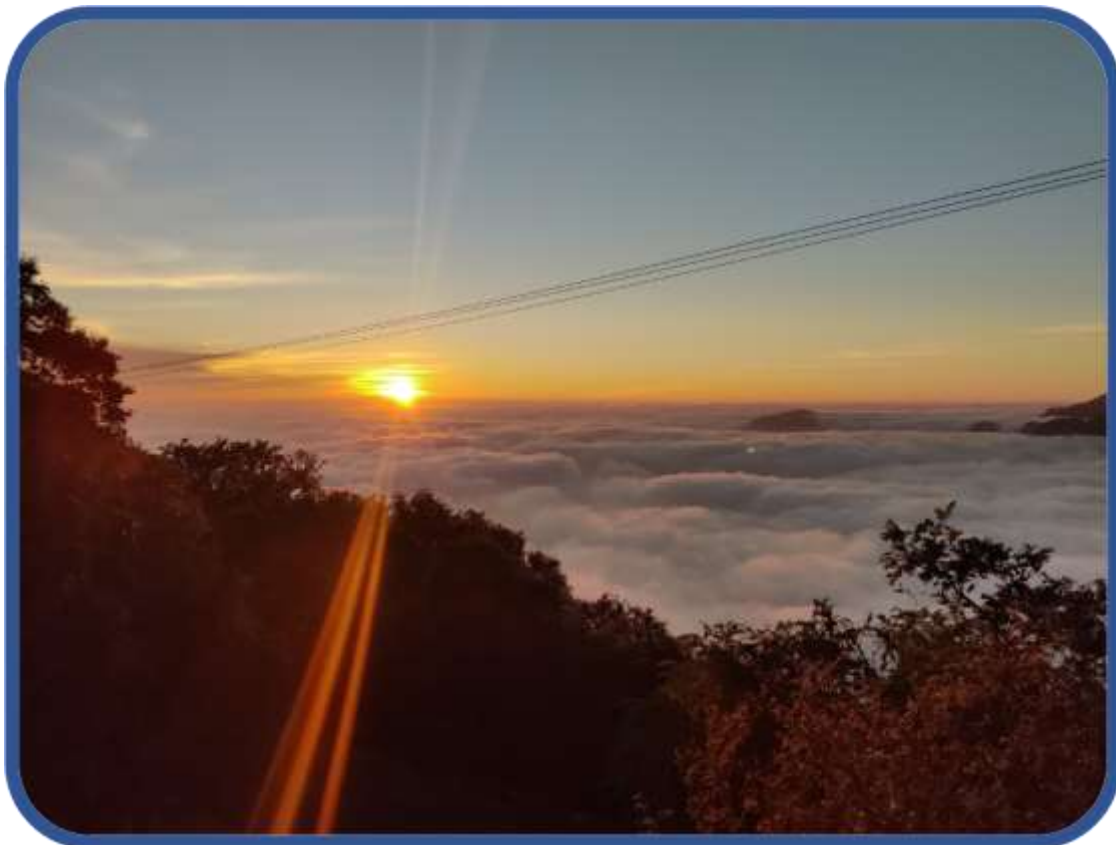
5. What's one thing that we wouldn't know about you?

I love travelling whenever I get the chance.

6. Tell us about your best field meal.

A SPICY bowl of chicken curry cooked during an outing.

7. Where was your best sunrise/sunset location?



Sunrise in Nainital, India

8. What made you decide to be a geophysicist?

The blend of physics and its application to understanding Earth's processes drew me toward geophysics.

9. What do you do in your spare time?

I enjoy hiking and exploring local cuisines.

10. What is a challenge you have overcome and how did you do so?

Transitioning from pure physics to applied geophysics was a steep learning curve. By immersing myself in relevant literature and seeking mentorship, I navigated this transition effectively.

11. What is a challenge that you see in geoscience today, and how do you see the community overcoming it?

A key challenge in geoscience today is the accurate monitoring and modeling of subsurface CO₂ plumes, which can be addressed through the integration of advanced monitoring technologies like Distributed Acoustic Sensing (DAS), high-resolution simulations, and interdisciplinary collaboration.

12. What reaction do you mostly get when you tell someone that you are a geophysicist?

Curiosity! Most people are intrigued and often ask about earthquakes or oil exploration.

13. When you are asked what you do – what do you do?

I explain that I use seismic modelling to understand the Earth's subsurface, particularly for monitoring carbon storage and addressing climate change.

14. What is the best way that the ASEG could let the public know about geophysics and its benefit to the everyday life?

Interactive workshops, social media campaigns, and collaborations with educational institutions could effectively highlight the relevance of geophysics.

15. Where do you think exploration geophysics will head in the next 10-15 years?

The integration of AI and machine learning will revolutionize data analysis and interpretation, making exploration faster and more accurate. Additionally, advancements in remote sensing technologies will enhance monitoring capabilities.

16. What aspect of geophysics do you enjoy most?

I enjoy the interdisciplinary approach it fosters, combining physics, engineering, and environmental science to solve critical challenges.