

## Member Spotlight

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



We welcome **Tom Zhao** under the spotlight in this issue as he shares his enlightening story! Tom is not a new face to ASEG, especially to the newsletter, as he has been on its team of editors for the last couple of years.

Tom: I feel very honoured to volunteer as an editor for the ASEG newsletter from 2021. Since then, I have learnt much knowledge, no matter the technical (such as using Office and Mailchimp) or the email writing etiquette, from all kind and supportive people I contact from ASEG.

This is the place where some of my ideas could be made into reality. Also, I am so excited that our new editors, Emad and Alanis, got this issue's new design for the newsletter! Very well designed, isn't it?

Beyond my role as a newsletter volunteer, I am grateful for the opportunity to contribute to the successful organization of CAGE 2022. Participating in the event gave me insight into how complex it is to plan and execute such an undertaking, but the hard work and dedication of everyone involved paid off. Attendees enjoyed every moment of learning about geophysics from experienced presenters and making new connections. I hope to see another CAGE event in 2023, with more volunteers on board to support its success. (Also, my best field meals were during this camping. Thanks so much to Kate for finding this amazing chef!)

One of my other achievements this year was serving as the publicity chair for AEGC 2023, which attracted more than 900 delegates. It was a wonderful experience to collaborate with the major Australian exploration geoscience societies (ASEG, AIG, & PESA). Additionally, I had the opportunity to speak on stage for the first time as an international student, discussing the diversity and equity of geoscience with other lovely panel members. Although my performance was not flawless, I continuously improve my public speaking skills

and build meaningful connections with people. I attribute this growth to my volunteer experiences, which have made me more confident!

## **General questions**

### **1. For how long have you been studying geophysics?**

My involvement in geophysics research dates back to 2014, when my first paper was published on using gravity and magnetic data for delineating geothermal areas in China. Since then, even though I have been pursuing a career as a soil scientist in Australia since 2018, I have continued to use geophysical data, particularly EM induction, in my research. Therefore, I still consider myself a geophysicist.

### **2. Any field experiences? If so, something to share (like where it is, what you did, or interesting stories)**

I had much field experience in China, including MT, CSAMT, ERT, SP, and EH4 data collection and analysis, but mainly for geothermal exploration. I want to share that I always feel stressed when writing reports because they likely put the drilling at my recommended location, which costs a lot of money.

### **3. What do you usually do in your spare time?**

Travelling. I am writing these answers on the flight to “summer”.

### **4. What are your career goals in the future?**

Get a job in industry...you may know it is not easy to get a permanent job in academia.

### **5. What challenges do you see in geoscience today, and how do you see the community overcoming them?**

I believe the issue lies in the perception of the geoscience field. As a foreigner, I am unfamiliar with the school education system here. However, it seems that the general impression among local people is that professions in medicine, law, and business are more lucrative and enjoyable. The geoscience community is actively trying to change this perception by organizing an education day during AEGC to showcase the exciting world of geoscience to students.

### **6. How could the ASEG inform the public about geophysics and its benefit to everyday life?**

Maybe....organise public events such as talks, workshops, or demonstrations

that showcase the applications of geophysics in different fields, such as environmental monitoring, resource exploration, and infrastructure development.

**7. Do you think AI will take over your job, or will the human element remain vital to exploration successes?**

I don't think so. As someone who is currently exploring machine learning models for soil property prediction, I am aware of their limitations and potential inaccuracies. Real-world data validation is always necessary to ensure the reliability and validity of our studies. Nonetheless, I believe that AI is a valuable tool that can enhance our understanding and analysis of complex geoscience data.

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