ABDULLAH ALI ALI HUSSEIN

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Sex Male | Date of Birth: Jan 1989 | Nationality Yemeni

PROFILE SUMMARY

Abdullah Ali Ali Hussein received his Ph.D. in Geophysics, with a particular emphasis on rock physics, from the School of Ocean and Earth Science at Tongji University, Shanghai, China, in 2024. His research focused on the geoacoustic properties and geotechnical parameters of marine sediments, essential for interpreting geophysical measurements, military oceanography, landslide hazard assessments, and ocean engineering applications. Abdullah is eager to apply his expertise in a dynamic professional environment, especially in fields where rock physics plays a key role.

Abdullah is proficient in utilizing geological software programs such as Petrel, Surfer, Techlog, ArcGIS, and CorelDraw X6. He is also skilled in applying machine learning techniques to geological data using Python and MATLAB. His expertise spans various fields, including rock physics, sedimentology, stratigraphy, petroleum geology, and marine geotechnical engineering.

One of Abdullah's notable achievements is the development of a comprehensive physics-guided machine learning framework. This framework predicts shear-wave velocity and undrained shear strength of marine sediments using ODP/IODP logging data with Python and MATLAB programming. Abdullah has also published several papers in these fields and was honored with the Second Prize of the President's Scholarship of Tongji University for academic excellence in both 2022 and 2023.

Abdullah is equipped with strong analytical and problem-solving abilities, exceptional attention to detail, and a team-oriented attitude that thrives in collaborative work environments. He is committed to continuous learning and personal growth.

CORE COMPETENCIES

- Marine Geology
- Rock physics
- Sedimentology
- Geophysics
- Sequence Stratigraphy
- Petroleum geology
- Petrophysics
- Geological Mapping
- Field Geology
- Geological software (Petrel, Surfer, Techlog, ArcGIS, CorelDraw X6)
- Machine learning
- Data analysis
- Research
- Report writing
- Presentation skills
- Self-improvement
- Time management
- Microsoft Office (Word, PowerPoint, Excel, Access)
- Internet navigation
- Language proficiency (Arabic, English, Chinese)
- Scientific reading
- Online research
- IQ testin

PROFESSIONAL SKILLS

- Passionate about geology and keeping up-to-date with the latest scientific research in the field.
- Experience in conducting research projects in various geological fields such as sedimentology, geophysics, stratigraphy, engineering geology, petroleum geology, and petrology.
- Proficient in various geological software programs such as Petrel, Surfer, Techlog, ArcGIS, and CorelDraw X6, and experienced in utilizing them for geological research and interpretation.
- Proficiency in applying machine learning methodologies to geological data with a specific focus on forecasting shear wave velocity via an IODP dataset.
- Excellent management skills, the ability to work under pressure, learn quickly, and the ability for self-improvement.
- Excellent ability in navigating through the internet, proficiency in Microsoft Office applications (Word, PowerPoint, Excel, Access, P manager), and can use Microsoft Windows (98, XP, 7, 10).

PROFESSIONAL EXPERIENCE

Teaching and Research Experience
Thamar University

- Taught fundamentals of geology, geological processes, sedimentology, geophysics, stratigraphy, engineering geology, sedimentary rocks, petroleum geology, petrology, general geology, subsurface geology, and geology of Yemen.

- Demonstrated good knowledge of geological fieldwork, utilizing techniques such as geological mapping and sample collection.

Machine Learning Researcher in Geology

- Utilized machine learning methodologies to analyze geological data, specifically focused on forecasting shear wave velocity via an IODP dataset.
- Conducted statistical analysis and data modeling to develop accurate predictions for geological processes and phenomena.
- Worked with a team of researchers and geologists to develop novel applications for machine learning in the field of geology.

Geology Software Proficiency

- Demonstrated proficiency in various geological software programs, including Petrel, Surfer, Techlog, ArcGIS, and CorelDraw X6.
- Utilized these programs to conduct geological research, analyze data, and create visual representations of geological phenomena.
- Trained students and colleagues on the use of these software programs, providing guidance and support as needed.

EDUCATION & PROFESSIONAL DEVELOPMENT

Ph.D. in Geophysics | Sep 2019 – Jan 2024
State Key Laboratory of Marine Geology, Tongji University, Shanghai, China
Thesis: Rock physics analysis of marine sediments and physics-guided machine learning prediction for shear wave velocity and shear strength
Supervisor: Prof. Luanxiao Zhao

M.S. in Sequence Stratigraphy and Sedimentology | Sep 2016 - Jul 2019
School of Earth Sciences and Resources, China University of Geosciences, Beijing
Thesis: Sequence Stratigraphic Position and Sedimentological Features of the Oolitic-Grain Bank in the North China
Platform: An Example from the Miaolingian of Beijing
Supervisor: Prof. Mei Mingxiang

BSc in Geology and Environmental Sciences | Sep 2008 - Jul 2012
Faculty of Applied Sciences Thamar University, Yemen. Stood 1st with 90% marks and also secured the best graduation project award.
Supervisor: Prof. Nabil Al-Areeq

OTHER SKILLS

- Reading scientific books and following the latest releases in the scientific field, especially in the field of geology.
- Passed HSK-4 securing high grades after a one-year Chinese language course.
- Diploma in English Language (March 2nd, 2010 to Apr 2nd, 2011) with Very Good grade 86.8%.
- Diploma in Information Technology (6-May- 6 -Sep 2013), Hikmah University Centre for Languages and Computer Science, with excellent grade (96%).
- Passed online IQ Test, securing 92% of the total marks.

PUBLICATIONS

Abdullah Ali Ali Hussein, Luanxiao Zhao*, Abd Al-Salam Al-Masgari, & Handoyo Handoyo. Undrained shear strength characteristics of marine sediments and its influencing factors. Marine Geophysical Research, 2024 Sep;45(3):14. IF:1.6, JCR: Q2. Doi.org/10.1007/s11001-024-09545- 4.

Abdullah Ali Ali Hussein, Luanxiao Zhao*, Yuanyuan Chen, and Jiliang Wang. Rock physics characteristics of marine sediments in the South China sea: The link between the geological factors and elastic properties. Frontiers in Earth Science,2023, 10, 931611, SCI.00092059630000, IF:3.6, 他引: 2 次, JCR: Q2（GEOSCIENCES.MULTIDISCIPLINARY). Doi.org/10.3389/feart.2022.931611.

Abdullah Ali Ali Hussein, Khalid Latif*, Kamran Shehzad, Kyawt Kay Khaing, Muhammad Riaz, and Khushal Khan. Ooid distribution and fabric in the Miaolingian of Xiaweidian Section, Beijing (North China Platform). Journal of Geo-Marine Sciences,2021,50 (9), pp.743-758, SCI:000756208500009, IF: 0.6, 他引: 1 次, JCR: Q3（INDIAN JOURNAL OF GEO-MARINE SCIENCES). Doi.org/10.56042/ijms. v50i09.66663.

Kyawt Kay Khaing,Khalid Latif, Than Htike Oo, **Abdullah Ali Ali Hussein**, Myo Myint Aung & Chaojia Mei. (2022). Diagenetic implications for the oolitic limestone in the Miaolingian Zhangxia Formation, Beijing (North China Platform). Carbonates and Evaporites,2021, 37(4), 67, SCI:000850810000002, IF:1.4, 他引: 2 次, JCR: Q3（Carbonates and Evaporites - Springer). Doi.org/10.1007/s13146-022-00808-y .

Khalid Latif, Enzhao Xiao, Muhammad Riaz, and **Abdullah Ali Ali Hussein**. Calcified cyanobacteria fossils from the leiolitic bioherm in the Furongian Changshan Formation, Datong (North China Platform). Carbonates and Evaporites,2019, 34(3), pp.825-843, SClE :000483699800024 IF:1.4, 他引: 24 次, JCR: Q3（Carbonates and Evaporites - Springer). DOI: 10.1007/s13146-018-0472-8.

Khalid Latif., Enzhao Xiao, Muhammad Riaz, Long Wang, Muhammad Younis Khan, **Abdullah Ali Ali Hussein**, MU Khan. Sequence stratigraphy, sea-level changes and depositional systems in the Cambrian of the North China Platform: A case study of Kouquan section, Shanxi Province, China. Journal of Himalayan Earth Sciences, 2018, 51(1):1-16, IF:0.36, 他引: 22 次, JCR: Q4 （National Centre of Excellence in Geology, University of Peshawar). Doi.org/10.1007/s13369-018-3403-z.

Muhammad Riaz, Khalid Latif, Tehseen Zafar, Enzhao Xiao, Shahid Ghazi, Long Wang, and **Abdullah Ali Ali Hussein**. Assessment of Cambrian sequence stratigraphic style of the North China Platform exposed in Wuhai division, Inner Mongolia. Himalayan Geology, 2019,40(1), 92-102., SClE :000489937100009, IF:1.41, 他引: 9 次, JCR: Q3 (WADIA INST HIMALAYAN GEOLOGY).

CONFERENCES

Hussein, A.A.A., Latif, K., Riaz, M., Xiao, E. 2018. Sedimentary features of ooids from the Cambrian Series 3 of North China Platform: A case study of Xiaweidian section, Beijing. International conference Earth sciences Pakistan (August 11-13, 2018), Pakistan. Abstract Volume.

Latif, K., Xiao, E., Riaz, M., **Hussein, A.A.A** 2018. Calcified cyanobacteria fossils from the bioherms in Cambrian Series 3 and Furongian of Shanxi Province, North China Platform. International conference Earth sciences Pakistan (August 11-13, 2018), Pakistan. Abstract Volume.

International Conference on Environment, College of Applied Science, Thamar University.

Conference on Faculty of Oil and Minerals, University of Aden, In Collaboration with the Yemen Geological Survey and Mineral Resources Board in Geology (Online).

Conference on Science and Development in Yemen.

AWARDS & HONORS

- The Second Prize of the President Scholarship of Tongji University for academic studies, 2023/2024.
- The Second Prize of the President Scholarship of Tongji University for academic studies, 2021/2022.
- Marine Scholarship of China for Ph.D program, School of Ocean and Earth Science, Tongji University, 2019.
- Chinese government scholarship to study M.S. in Geology at the school of Earth sciences and resources, China University of Geosciences (CUG), Beijing, China,2015.
- First position awarded in a Chinese course from China University of Geosciences (Beijing).
- Award of the best student during Master's level studies from China University of Geoscience (Beijing).
- Award of Best Student during Bachelor level Study from the Dhamar University, Yemen.

MEMBERSHIPS

- Membership of the Department of Geology Council
- Member of the faculty members union
- A member of the main examinations committee at the Faculty of Applied Science, Thamar University,
- Member of the geological team to inspect and study the effects of earthquakes in the region of Utama – Yemen
- Member of the Yemeni Students' Union in China.
- ARID Scientific Membership

LANGUAGES

Mother Language: Arabic
English language. Diploma
Listening: C1/2
Reading: C1/2

Spoken interaction: C1/2
Spoken production: C1/2
WRITING: C1/2
Chinese language. HSK4.
Listening: C1/2
Reading: B1/2
Spoken interaction: C1/2
Spoken production: C1/2
WRITING: B1/2

REFERENCES

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