Eric Doyoon Kim

• Phone: (+1) (520)-390-9941 / (+82) 10-2703-3310
• E-mail: ericdkim@arizona.edu

EDUCATION

University of Arizona — Tucson, Arizona
Ph.D. Student in Geosciences (Geophysics/Seismology) — August 2026 – Current

Yonsei University — Seoul, Republic of Korea
B.S., Department of Earth System Sciences — March 2024 – February 2026

Kyungpook National University — Daegu, Republic of Korea
Attended to the Department of Oceanography, School of Earth System Sciences — March 2020 – February 2024

RESEARCH EXPERIENCE

Earthquake Swarm in Baekryeong Island Off the West Coast of the Korean Peninsula — In Progress

- Relocated 453 earthquakes on Baengnyeong Island, South Korea, in 2019–2020, using HYPOELLIPSE and hypoDD with data from a four-station local network.
- Revealed a distinct subsurface fault structure responsible for the swarm activity.
- Analyzed ambient noise to assess anthropogenic and natural (oceanic and meteorological) influences.
- Co-author: Won-Young Kim, Xin-Li Fan

Earthquake Swarm during 2019–2020 near Baengnyeong Island, Yellow Sea, and the Fault Responsible for the Swarm — July, 2026
Presentation — Jeju, Republic of Korea
Eric D. Kim, Xin-Li Fan, 2026 CHINA-JAPAN-KOREA SYMPOSIUM ON ACTIVE TECTONICS ALONG THE EAST ASIA CONTINENTAL MARGIN

Crustal Structure beneath Chungcheong Province, South Korea, from Receiver Function Analysis
Undergraduate Thesis

- Performed receiver function analysis using teleseismic waveform data recorded from 78 regional seismic stations between 2020 and 2024 across southern Gyeonggi and Chungcheong Province.
- Applied H–κ stacking to constrain variations in crustal thickness (28.5–35.8 km) and Vp/Vs ratio (1.64–1.82) and to infer tectonic implications for the midwestern Korean Peninsula.
- The crust beneath the study area thickens from north (~28 km) to south (~36 km), correlating negatively with the Bouguer gravity anomaly and positively with elevation.

Nodal Array Monitoring of the 2020 Haenam Earthquake Swarm, Korea — June 2020
Poster Presentation — Gwangju, South Korea

- Analyzed the 2020 Haenam earthquake swarm using 1,860 three-component waveform records recorded by a nodal array.
- Relocated 299 events, revealing that the swarm originated from at least two fault structures with distinct geometries.
- Gained first-hand experience in seismic waveform analysis through manual P- and S-wave picking during freshman year, forming the foundation for later seismological research.
- Citation: Han, J., Seo, W., Kwon, J., Kang, S. Y., Kim, W.-Y., Won, D., Chung, J.-I., **Kim, E. D.**, & Kim, K.-H. (2020). Nodal Array Monitoring of the 2020 Haenam Earthquake Swarm, Korea. Proceedings of the Korean Earth Science Society Conference, 85.

MENTORSHIP AND INCLUSION EXPERIENCE

Kyungpook National University Daegu, Republic of Korea
Mentor for Students with Disabilities March 2023 – December 2023

- Served as a Disability Support Assistant, collaborating with instructors to enhance academic accessibility and ensure student success, providing individualized support such as note-taking, study guidance, and lecture comprehension assistance (over 250 hours of total support).
- Mentored students in Oceanography courses, including Physical Oceanography and Lab I & II, Environmental Chemistry, Microbial Oceanography I & II, Chemical Oceanography and Lab II, and Biological Oceanography and Lab II.

HONORS AND AWARDS

Educational-Industrial Cooperation Consortium of Energy and Mineral Resources Development Scholarship 2024

Academic Excellence Scholarship 2020, 2023

National Study-Work Program Scholarship for Mentoring Students with Disabilities 2023

TECHNICAL SKILLS & LANGUAGES

MATLAB, Python, LinuxOS, English (Fluent, TOEFL 103), Korean (Native Proficiency)

SELECTED COURSEWORK

Geology/Geoscience – Geophysics & Laboratory, Geophysical Exploration & Lab, Structural Geology & Laboratory, Geodynamics and Practice, Petroleum Geology & Lab, Field Geology & Laboratory, Interior of the Earth, Submarine Geology

Oceanography – Physical Oceanography and Lab I & II, Environmental Chemistry, Chemical Oceanography and Lab I & II

Data Science and Programming – Introduction to AI and its Applications, Introduction to Matlab, Coding Basics for Natural Sciences, Data Analysis in Earth System Science & Lab, Earth Observation Satellite Data Science And Laboratory

ACTIVITIES

Yonsei Society of Geoscientific Scrutiny (YSGS) Seoul, Republic of Korea
Member March 2024 – Present

- Participated in over 20 seminars covering diverse topics in Earth sciences.
- Joined multiple field trips centered on structural geology, sedimentology, and paleontology.

Industry-Academia-Research Resources Development Academy Daejeon, Republic of Korea
Participant July 2024

- Completed an intensive program hosted by the Korea National Oil Corporation (KNOC).
- Gained practical knowledge in reservoir engineering and petroleum economics through lectures and case studies led by industry experts.

Pat & Matlab Daegu, Republic of Korea
Co-Founder & Member September – December 2023

- Developed and visualized models of oceanographic phenomena in the East Sea using MATLAB.
- Applied classroom knowledge to process and analyze real-world oceanographic data, enhancing practical MATLAB programming skills.

Ocean World Daegu, Republic of Korea
Co-Founder & Member September – December 2023

- Initiated and led a 10-week peer-led study group to gain understanding of advanced topics in Chemical Oceanography.
- Enhanced analytical skills by organizing weekly discussions and collaborative problem-solving sessions on topics including chemical equilibrium, mass balance, and nuclear chemistry.

University of Oregon Eugene, Oregon
American English Institute (AEI) September – December 2022
Completed Course 6, the final and most advanced course in the program.

MILITARY SERVICE

Republic of Korea Army (ROKA) Gyeonggi-do, Republic of Korea
Sergeant, The Capital Mechanized Infantry Division March 2, 2021 – September 1, 2022

- Completed mandatory military service, operating and maintaining mobile telecommunication equipment.
- Strengthened leadership and teamwork skills by serving as a Squad Leader.