TAEWOONG YOON

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PROFESSIONAL SUMMARY

Bachelor of Science candidate in Earth System Sciences with research experiences in Seoul National University Paleontology Lab, specializing in mammalian fossil identification, compositional analysis, and sedimentological interpretation through laboratory and field research. Experienced in leading student seminars and organizations to promote scientific collaboration and communication. Committed to advancing paleontological knowledge and interdisciplinary engagement.

EDUCATION

Yonsei University, College of Science
Bachelor of Science in Earth System Sciences

Estimated Graduation: March 2026
GPA: 3.99
Major GPA: 4.16

HONORS AND AWARDS

Yonsei Jinri Scholarship (Merit-based)   August 2024 – Present

- High Honors for the academic year (Top 5% GPA)

Resource Development Specialization Scholarship (National Program, Merit-based)   June 2024 – February 2025

- Awarded based on academic excellence among national R&D program participants

Academic Excellence Award, Yonsei Department of Earth System Sciences   August 2024 & February 2025

- Awarded to students ranking in the top 3% of the department based on academic performance

Excellence Award, ROK Air Force Morale & Education Essay Competition   March 2023

- Awarded for an essay using a historical case of paleontological fraud to reflect on the importance of truth and integrity in military service

RESEARCH EXPERIENCE

Seoul National University Paleontology Lab   June 2024 – Present
Seoul, South Korea
Paleontology Researcher

- Reidentified a 1mm tooth fossil (Early Miocene, Bukpyeong Formation, discovered in 2005) as small insectivorous mammal molar by microscopically revealing a challenging 0.1mm conulid feature
- Identified a 5 mm tooth fragment fossil (Early Miocene, Bukpyeong Formation, discovered in 2005) as a mid-sized rodent molar by analyzing its ridge morphology
- Co-authoring the thesis "Pelodiscus of Early Miocene, Hagjeon formation in Korea" with contribution to fossilization process, for submission to the Journal of the Geological society of Korea (KCI Journal) in July
- Performed mechanical preparation of 10+ plant fossils using an airscribe to remove matrix material and expose key morphological features

Yonsei University Crystallography Lab   March 2024 – May 2024

Seoul, South Korea

Paleontology Researcher

- Designed and conducted an analytical experiment to investigate compositional differences in a Mosasauridae tooth fossil based on color variation, using XRF and XRD at the Pohang Accelerator Laboratory
- Determined that darker regions of the tooth contained approximately 5% higher Mg and Fe substitution compared to lighter areas, as revealed by compositional analysis software

National Dinosaur Fossil Excavation Project   August 2024

Gyeongsangnam-do, South Korea

Paleontology Field Worker

- Conducted field measurements of over 20 vertebrate fossil specimens to document their size and spatial distribution for further research, and their excavation is currently underway with government fundings
- Provided a 10m columnar section about the fossil-bearing site to analyze the sedimentation and fossilization process

PROFESSIONAL EXPERIENCE

Gangnam-Daesung Earth Science   March 2021 – May 2022

Seoul, South Korea

Earth Science Instructor & Q&A Manager

- Taught high school students Earth Science with a conceptual focus, leading to over 95% student satisfaction
- Promoted to Q&A Manager, providing personalized explanations to more than 500 daily questions, strengthening science communication skills

ACTIVITIES

National Resource Development Specialization Field Program   August 2024-December 2024

Gangwon-do & Gyeongsangnam-do, South Korea

Participant

- Participated in a national geoscience training program focused on structural and sedimentary geology
- Completed a 10-day field camp in Taebaek (Gangwon-do), producing a geological map of a >10 km² area in Wonju through hands-on structural analysis
- Joined a 3-day field camp in Jinju (Gyeongsangnam-do), studying sedimentary environments and contributing to documentation of dinosaur footprint fossils in the area

ISAD 2023 (International Symposium on Asian Dinosaurs) in Korea   November 2023

Gyeonggi-do, South Korea

Participant

- Attended over 30 presentations by international paleontologists on topics ranging from dinosaurs and mammals to bivalves
- Actively engaged in Q&A sessions, asking questions about research techniques such as X-ray analytical methods

YSGS (Yonsei Society of Geological Scrutiny)   December 2023-Present

Seoul, South Korea

Student Club Executive

- Attended over 20 seminars covering diverse earth science topics, engaging with peers from various backgrounds
- Organized more than five field trips across South Korea, collaboratively exploring geological and paleontological sites

PSY (Paleontological Society in Yonsei)   March 2024-Present

Seoul, South Korea

Founder & Leader of the School Club

- Founded and led a club of 8 students passionate about paleontology, fostering a collaborative learning and discussion culture
- Facilitated over 20 seminars covering all chapters of *Introduction to Paleobiology and the fossil record* and *Vertebrate Paleontology*, encouraging in-depth group discussions and critical analysis
- Presented well received seminars on mammalian evolution and taphonomy, focusing on fossil record interpretation and preservation processes
- Organized four visits to natural history museums and coordinated field trips to relevant paleontological sites

AURM (Intercollegiate Debate Club)   March 2024- Present

Seoul, South Korea

Yonsei University Branch Leader

- Actively participated in inter-university debates, engaging with students from diverse schools on social and scientific topics
- Elected branch leader, coordinating Yonsei University members' participation and collaborating with other officers to manage club activities

COMMUNITY SERVICE

National Museum of Korea   June 2014-July 2019

Seoul, South Korea

Educational Guide Volunteer

- Provided interpretive guidance for visitors at Prehistoric Life Experience section (aprox. 68 hours total)

Gwangjin Municipal Youth Center   December 2021- January 2022

Seoul, South Korea

Access Control Volunteer

- Assisted with visitor screening and access management during the COVID-19 pandemic to protect children in the center and ensure safety protocols were followed (approx. 48 hours total)

SKILLS

Dioptas & Match!

- Analyzed XRD and XRF data using software to identify and quantify mineral phases in complex samples with over 95% accuracy through pattern matching, peak fitting and reference data comparison

Las X (Leica Application Suite X) microscope Software

- Utilized the software to capture and process high-resolution microscope images optimized for paleontological research

Adobe Photoshop

- GTQ Photoshop certificate - Level 1 (Certified top-level proficiency)
- Utilized the software to perform focus stacking by combining multiple microscopic images of the same specimen taken at different focal depths

Adobe Illustrator

- Created scientific figures of mammalian tooth fossil specimens in Adobe Illustrator by tracing outlines and illustrating surface curvatures to accurately depict morphological features