CHAEHYEONG LEE

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RESEARCH INTERESTS

Physical Oceanography
- Upper ocean mixing processes

Ocean Dynamics and Climate Sciences
- Ocean's heat budget and its change

EDUCATION

Ph.D student *Aug. 2024 - present*
Department of Atmospheric and Oceanic Sciences,
University of Colorado Boulder

M.S. in Atmospheric Sciences *Mar. 2022 - Aug. 2023*
Yonsei University, Seoul, Republic of Korea
Advisor : Prof. Hajoon Song
Thesis: The Increasing Trend of Persistence of Sea Surface Temperature Anomalies due to Oceanic Processes

B.S. in Atmospheric Sciences *Mar. 2016 - Feb. 2022*
Yonsei University, Seoul, Republic of Korea *Cumulative GPA 3.92/4.3*
Graduation ranking (for 4years) : 3/33 *major GPA 4.03/4.3*

EXPERIENCES

Research Experiences
Research Assistant *Aug. 2024 - present*
Department of Atmospheric and Oceanic Sciences,
University of Colorado Bouder

Master's Degree Researcher *Aug. 2023 - Jul. 2024*
Air-Sea Modeling lab., Yonsei University, (PI: prof. Hajoon Song)

Research Assistant *Dec. 2020 - Aug. 2023*
Air-Sea Modeling lab., Yonsei University, (PI: prof. Hajoon Song)
Combined Bachelor's-Master's Program

Teaching
Teaching Assistant
- Climate & Civilization (undergraduate course) *spring 2023*
- Physical Oceanography (undergraduate course) (in English) *fall 2022*

Others
Military services *Apr. 2018 - Nov. 2019*
Republic of Korea Army

AWARDS & SCHOLARSHIPS

- Third Prize (Outstanding Thesis Award), Yonsei University *Jul. 2024*
- Full tuition scholarship for merit (18.6M KRW), Yonsei University *Mar. 2022 - Aug. 2023*
- High Honors (for High Academic Performance), Yonsei University *Feb. 2022*
- Jilli Scholarship (2.3M KRW) (for High Academic Performance), Yonsei University *Jun. 2020 - Jun. 2021*

PUBLICATIONS

Lee, C., Song, H., Choi, Y., Cho, A., and Marshall, J. Observed multi-decadal increase in the surface ocean's thermal inertia. *Nat. Clim. Chang.* (2025). https://doi.org/10.1038/s41558-025-02245-w

PRESENTATIONS

Chaehyeong Lee, Hajoon Song, Ajin Cho, and Yong-jin Tak, The increasing trend of persistence of sea surface temperature in the past 40 years, *Dec. 2022*
AGU Fall meeting, Chicago, Illinois, US (poster)

Chaehyeong Lee, Hajoon Song, Ajin Cho, and Yong-jin Tak, Increasing persistence of sea surface temperature anomaly and duration of marine heatwaves, *Jun. 2022*
The Korean Society of Oceanography Spring conference, Jeju, Korea (oral)

TECHNICAL SKILLS

Programming Python
Julia

Software & Tools MITgcm
MATLAB

PATENT

Hajoon Song & Chaehyeong Lee, Evaluation System and Method of persistence of Sea Surface Temperature anomalies using autocorrelation coefficient and Arctangent regressive model, Republic of Korea Patent Application 10-2022-0157159 *Nov. 2022*