

Donglai Yang

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Earth & Atmospheric Sciences \diamond Georgia Institute of Technology

BIOGRAPHY

Donglai Yang is a second-year Ph.D. student in [Glacier Geophysics Lab](#) at Georgia Institute of Technology. He is broadly interested in numerical modeling in glaciology, ice-penetrating radar physics, and applications of Scientific Machine Learning to bridge radar observations and ice sheet modeling.

EDUCATION

Georgia Institute of Technology, Georgia <i>Ph.D. student, Earth and Atmospheric Sciences (Advisor: Winnie Chu)</i>	08/2023 - Present
University at Buffalo, New York <i>M.S. Computational Geosciences (Advisor: Kristin Poinar, Sophie Nowicki)</i>	08/2021 - 05/2023
Wesleyan University, Connecticut <i>B.A. Physics; Earth Sciences (Advisor: Phillip Resor)</i>	08/2017 - 06/2021

PUBLICATIONS

1. **Yang D.**, Poinar K., Nowicki S., Csatho B., 2024 (Accepted) *Characteristics of dynamic thickness change across diverse outlet glacier geometries and basal conditions*. Journal of Glaciology. Preprint: doi.org/10.31223/X56D72

CONFERENCE ABSTRACTS

† represents oral presentations; * represents poster presentations; no symbol represents presentations by collaborators

1. Mejia J., Poinar K., Meyer C., Chu W., **Yang D.**, 2023. *Investigating Observations and Modeling to investigate Firn Aquifer Hydrology and its Role in Crevasse Propagation on Helheim Glacier*. AGU 2023 Fall Meeting conference.
2. † **Yang D.**, Poinar K., Nowicki S., 2022. *Synthetic glacier experiments reveal controls on ice dynamic thinning variability*. AGU 2022 Fall Meeting conference.
3. † **Yang D.**, Poinar K., Nowicki S., 2022. *Modeling characteristic surface elevation changes reveal dominant process control*. NASA ICESat-2 Science Meeting.
4. * **Yang D.**, Resor P., 2022. *Numerical Modeling of Frictional Melting Dynamics Constrained by Surface Micro-Roughness*. EGU General Assembly 2021.

HONORS & FELLOWSHIPS

iHARP Polar Informatics Graduate Fellow (~ 41000) – 2024
Best Student Poster – Georgia Tech EAS Graduate Student Symposium ($\$150$) – 2024
Pegrum Professional Development Award ($\$900$) – 2023
Phi Beta Kappa National Honor Society – 2021
High Honor in Earth & Environmental Sciences – 2021
College of Integrative Science Summer Research Fellowship ($\$5,000$) – 2020
College of Environment Research Fellowship ($\$4,800$) – 2019
Dean's List, Undergraduate Studies – 7 Semester

TEACHING EXPERIENCE

Georgia Institute of Technology

Graduate Teaching Assistant, Earth Processes Lab *EAS2600*
Undergraduate-level introduction to physical processes on Earth

University at Buffalo

Graduate Teaching Assistant, Natural Hazards and Climate Change *GLY105*
Undergraduate-level introduction to climate change, geology, and hazards

Wesleyan University

Course Assistant, Modeling the Earth and Environment *EES375*
Senior undergraduate-level numerical modeling of geophysical processes with MATLAB

LEADERSHIP EXPERIENCE

Executive Vice President

Graduate Student Government Association (GSGA, 2024-2025) at Georgia Tech
Assisting and promoting student campus-wide initiatives and facilitates two-way conversations between graduate student body and the university administration.

Research Seminar Lead

Geophysics Seminar at Georgia Tech (2023); Climate Seminar at University at Buffalo (2023)
Coordinated and managed logistics for research seminars, including arranging talks by both internal and external speakers

WORK EXPERIENCE

Sust Global

Climate Data Science Intern, 06/2022 - 08/2022
Engineered model-based future physical climate risk index for heatwave, extreme precipitation, and sea level rise.

RELEVANT COURSES

Undergraduate level

◇ Electrodynamics ◇ Earth System Modeling

Graduate level

◇ Numerical Analysis and Methods for PDE ◇ Thermodynamics ◇ Finite Element Methods ◇ Continuum Mechanics ◇ Machine Learning ◇ Glaciology ◇ Geophysical Electromagnetic Methods