

# Youngmin Choi

☎ (+1) 510-612-9302 | ✉ youngmin.choi@jpl.nasa.gov

## Education

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### University of California, Irvine

PHD IN EARTH SYSTEM SCIENCE

- Advisor: Prof. Mathieu Morlighem

Irvine, USA

Sep. 2015 - Mar. 2020

### Seoul National University

M.S. IN ENERGY RESOURCES ENGINEERING

- Advisor: Prof. Hyeong-Dong Park

Seoul, S.Korea

Mar. 2013 - Feb. 2015

### Seoul National University

B.S. IN CIVIL, URBAN, AND GEOSYSTEM ENGINEERING

- Cum Laude
- Including mandatory military service

Seoul, S.Korea

Mar. 2006 - Feb. 2013

## Research Experience

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### Research Assistant

DEPARTMENT OF EARTH SYSTEM SCIENCE, UNIVERSITY OF CALIFORNIA, IRVINE

Irvine, USA

Sep. 2015 - Mar. 2020

### Research Assistant

DEPARTMENT OF ENERGY RESOURCES ENGINEERING, SEOUL NATIONAL UNIVERSITY

Seoul, S.Korea

Jan. 2013 - Feb. 2015

### Research Intern

NEW-RENEWABLE ENERGY RESOURCE CENTER

Daejeon, S.Korea

Aug. 2013

## Honors & Awards

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2019 **NASA Honor Award**, Group achievement award (Ice Sheet System Model Team), for achievements in the modeling and projection of the evolution of polar ice sheets and corresponding sea-level change.

2014 **Awards for Campus Ore Reserve Estimation Arena**, Korea Resources Corporation

Seoul, S.Korea

2013 **Best Paper Award**, Energy & Mineral Resources Development Association of Korea

Seoul, S.Korea

2013 **Best Presentation Award**, The Korean Society of Mineral and Energy Resources Engineers

Seoul, S.Korea

## Grants & Fellowships

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### NASA Earth and Space Science Fellowship (NESSF) Program

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)

USA

Sep. 2017 - Mar. 2020

### Jekins Family Graduate Fellowship

UNIVERSITY OF CALIFORNIA, IRVINE

USA

2015

### The Korea Energy and Mineral Resources Engineering Program Scholarship

ENERGY & MINERAL RESOURCES DEVELOPMENT ASSOCIATION OF KOREA (EMRD)

Seoul, S.Korea

Sep. 2013 - Dec. 2013

### National Scholarship for Science and Engineering

KOREA STUDENT AID FOUNDATION (KOSAF)

Seoul, S.Korea

2006 - 2013

- A full tuition undergraduate scholarship for eight semesters

## Publications

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4. H. Yu, E. Rignot, H. Seroussi, M. Morlighem, and **Y. Choi**, Impact of iceberg calving on the retreat of Thwaites Glacier, West Antarctica over the next century with different calving laws and ocean thermal forcing Modeling, *Geophysical Research Letter*, 2019.
3. M. Morlighem, M. Wood, H. Seroussi, **Y. Choi**, and E. Rignot, Modeling the response of Northwest Greenland to enhanced ocean thermal forcing and subglacial discharge, *The Cryosphere*, 2019.
2. **Y. Choi**, M. Morlighem, M. Wood, and J. H. Bondzio, Comparison of four calving laws to model Greenland outlet glaciers, *The Cryosphere*, 2018.
1. **Y. Choi**, M. Morlighem, E. Rignot, J. Mougnot, and M. Wood, Modeling the response of Nioghalvfjærdsfjorden and Zachariae Isstrøm glaciers, Greenland, to ocean forcing over the next century, *Geophysical Research Letter*, 2017.

## Presentations

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### 2019 American Geophysical Union

*San Francisco, USA*

ORAL PRESENTATION

*Dec. 2019*

Modeling calving dynamics of tidewater glaciers to simulate the future sea level contribution of Greenland (invited)

### 2019 IUGG General Assembly

*Montreal, Canada*

POSTER PRESENTATION

*Jul. 2019*

Modeling the Contribution of the Greenland Ice Sheet to Sea Level over the Next Century

### 2018 American Geophysical Union

*Washington D.C., USA*

POSTER PRESENTATION

*Dec. 2018*

Modeling the response of Greenland outlet glaciers to climatic forcing over the next century

### 2018 International Glaciological Society Symposium

*Buffalo, USA*

ORAL PRESENTATION

*Jun. 2018*

Comparison of calving laws for understanding calving dynamics of Greenland outlet glaciers

### 2017 American Geophysical Union

*New Orleans, USA*

POSTER PRESENTATION

*Dec. 2017*

Understanding calving dynamics of Greenland outlet glaciers by comparing calving laws in a 3D ice sheet model

### 19th International Conference on Finite Elements in Flow Problems

*Rome, Italy*

ORAL PRESENTATION

*Apr. 2017*

Modeling ice front dynamics of Greenland outlet glaciers using the level set method

### 2016 American Geophysical Union

*San Francisco, USA*

POSTER PRESENTATION

*Dec. 2016*

Modeling the Northeast Greenland Ice Stream in response to climate forcing

## Teaching Experience

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### Teaching Assistant

*Irvine, USA*

DEPARTMENT OF EARTH SYSTEM SCIENCE, UNIVERSITY OF CALIFORNIA, IRVINE

*2016 - Present*

- Climate Change (Fa. 2016)
- Physical Geology (Wi. 2017)
- On Thin Ice: Climate Change and the Cryosphere (Sp. 2017)

### Teaching Assistant

*Seoul, S.Korea*

DEPARTMENT OF ENERGY RESOURCES ENGINEERING, SEOUL NATIONAL UNIVERSITY

*2013 - 2014*

- Engineering Geology