

# Isabel Yuying Wu

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## Education

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- Jan 2018-  
Sep 2018**      **Massachusetts Institute of Technology, Department of Earth, Atmospheric and Planetary Sciences**  
**Visiting Student in Physical Oceanography**
- Coursework: 12.307 Weather and Climate
- Jul 2017**      **Universidad Politécnica de Madrid, Madrid, Spain**  
**Summer School Student, Rank: 2/21**
- Participated academic activities in satellite launching, hydrogen vehicle and cybersecurity
- Sep 2014 –  
Aug 2018**      **Tongji University, School of Ocean and Earth Science, Shanghai, China**  
**Bachelor degree in Oceanography, GPA: 86/100 (four years), 95/100 (last two years)**
- Studied in physical oceanography and earth science
  - Took classes in math, oceanography, geology, geophysics, remote sensing, GIS

## Research Experience

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- Jul 2019 -  
Aug 2019**      **Scripps Institute of Oceanography, UC San Diego, La Jolla, CA**  
**Summer Research in Physical Oceanography,**
- Visualization of Lagrangian particle tracking in ECCO4 ocean model
  - Ran mayavi package in python to establish 3D ocean bathymetry map
- Dec 2018**      **American Geophysical Union Fall Meeting 2018, Washington DC**  
**Oral Presenter in Ocean Science: OS41A-07,**
- Title: Vertical Structure and Evolution of an anticyclonic eddy in the South China Sea
  - Session: Physical Oceanography, Geodynamics, and Ecological Environment of the Western Pacific
- Jan 2018 -  
Dec 2018**      **Massachusetts Institute of Technology, Department of Earth, Atmospheric and Planetary Sciences**  
**Undergraduate Research in Physical Oceanography,**
- Collected and interpreted SSH datasets from NASA, HYCOM, AVISO
  - Used statistics tools to analyze the relationship between chlorophyll distribution and mesoscale eddy
  - Calculated mixed layer depth to compare its difference between eddy center and surrounding water
  - Ran MATLAB models to track one eddy's movement and analyzed its vertical structure changes
- 2016-2018**      **Tongji University, School of Ocean and Earth Science, Shanghai, China**  
**Research Assistant in Physical Oceanography,**
- Focus on mesoscale eddies in the Western Pacific Ocean and Kuroshio Current
  - Researched the annual changes of mesoscale eddies in the South China Sea

- 2016-2017**      **Tongji University, School of Ocean and Earth Science, Shanghai, China**  
**Research Assistant in Biological Oceanography,**
- Calculated MBT/CBT biomarker proxy to analyze the past temperature and climate
  - Researched the effects of PH environment on bGDGT (membrane spanning lipids) through lab work

## Honors and Awards

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| <b>2018</b> | Tongji University Study Abroad Travel Grant   |
| <b>2018</b> | Tongji University Talent Program Fellowship   |
| <b>2018</b> | Chinese National Innovation Research Program for College Students, Outstanding Winner |
| <b>2017</b> | Tongji University Spanish Study Abroad Fellowship                                     |
| <b>2016</b> | Tongji University Outstanding Student Scholarship (Third Prize)                       |
| <b>2016</b> | Tongji University Mathematical Modeling Contest (Third Prize)                         |

## Special Skills

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- Computer:**            MATLAB, Python, Linux, HTML, SPSS
- Officework:**        Microsoft Word, PowerPoint, Excel
- Interests :**           Data Visualization, Graphic Design, Photography, Planting
- Media:**              Adobe Premiere Pro (for video), Adobe Photoshop (for photo)
- Language:**          English (fluent), Chinese (native), Japanese (basic)
- Research Interests:** Mesoscale eddies, Bio-physical interaction, Mixed Layer Depth, Earth data visualization
- Familiar Datasets:**   HYCOM, AVISO, ECCO4, NASA MODIS