

Kexin Song

PERSONAL INFORMATION

MPO/RSMAS/UMIAMI *Mobile: (786)-201-4716*
M.S. student *E-mail: KXS1018@miami.edu*
4600 Rickenbacker Causeway, Miami, FL 33149 *Web: <https://kathy9980.github.io/>*

EDUCATIONAL BACKGROUND

08/2018 — Present	M.S. candidate	Rosenstiel School of Marine and Atmospheric Science (RSMAS) Served as MPS student representative for the Graduate Academic Committee (08/2018 – 12/2018) Advisor: Prof. Peter J. Minnett Field of research: Satellite Remote Sensing
06/2018	B.Sc.	Ocean University of China (OUC) Department of Marine Technology
02/2016 — 06/2016	Exchange	National Taiwan Ocean University (NTOU) Department of Communications, Navigation and Control Engineering

INTERNSHIP EXPERIENCE

North China Sea Marine Forecasting Center of State Oceanic Administration, Qingdao

11/2017 — 12/2017 **Intern of Data & Information Service**
Supervisor: Dr. Chengcheng Qian

- Extracted metadata of oceanic & meteorological datasets which are used in the weather forecast of the Bohai Sea and the Yellow Sea (Source: remote sensing, re-analysis and field observations)
- Compared the credibility and availability of various weather charts
- Compiled and Updated data description reports

Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences (CAS), Beijing

06/2017 — 06/2018 **Undergraduate Research Assistant**
Supervisor: Dr. Jin Sha and Dr. Xiaoming Li

Project Topic: Classification and Assessment of Water Types via MODIS Aqua Chlorophyll-a (Chl-a) Concentration around Hainan Island

- Analyzed MODIS/Aqua estimated Chl-a from Jul 2002 to Jun 2017 around Hainan Island
- Conducted water type classification and assessment based on Chl-a concentrations using K-means method
- Compiled data and wrote a report on the causes, trends and impacts of regional water quality

RESEARCH EXPERIENCE

Master Research: Accuracy Assessment of Summertime Reanalysis and Passive Microwave Sea-ice Concentration (SIC) Products in The Central Arctic

- Assessed the accuracy of summer passive microwave and reanalysis SIC in the Central Arctic by using human-inspection, MODIS sea ice extent, and multi-product ensemble SIC fields
- Analyzed reanalysis SIC products' dependence on the input remote sensing SIC dataset
- Discussing the causes of SIC uncertainty, and simulating the effect of surface features to satellite received energy using targeted radiative transfer study

Undergraduate Thesis: Anomalous Decrease in Passive Microwave Sea Ice Concentration (SIC) in Central Arctic: Real Variation or Misestimate?

11/2017 — 05/2018 Advisor: Prof. Jie Su

- Assessed consistency of three Arctic SIC products in describing low sea-ice concentration
- Evaluated the accuracy of 12 low passive SIC processes through optical images and numerical weather data
- Conducted case study and analyzed the impacts of weather conditions (i.e. thermodynamics, clouds and Arctic cyclones) on passive SICs

Student Research Developing Program (SRDP), OUC, Qingdao

11/2015 — 11/2016 **Group Member**

Advisor: Dr. Yanzhen Gu

Project Topic: Establishment of Marine Remote Sensing Satellite Database

- Constructed modules of quick view images and information retrieval
- Drafted abstract, 1.2 Download and Quick View Data and 3.2 Query Tool of project paper, Wang D., Huang D., Liu H., Hu Y., Song K., Liu Z., (2017). Establishment and application of marine remote sensing satellite database. *Meteorological Hydrological and Marine Instrument*, 2017, 34(2): 40-45.

LEADERSHIP

Debate Team of School of Information Science and Engineering

09/2014 — 06/2018 **Co-leader**

- Organized school debate competitions and selected team members
- Guided and participated in university debate competitions (2015, 2016 in the top four)

EXTRACURRICULAR ACTIVITIES

03/2020	Participant of the 2020 Unidata Users Workshop, University of North Carolina
08/2019	Participant of the Oceanhackweek, University of Washington, Seattle
08/2019	Participant of the NASA Summer School on Satellite Observations and Climate Models, California Institute of Technology, Pasadena
01/2019	Volunteer at Hempel World Cup Series for sailing, Miami
04/2015 — 06/2015	Voluntary expositor at Qingdao Fire Services Museum, Qingdao

HONORS & AWARDS

06/2018	Excellent Graduate Award, OUC
09/2017	Outstanding Student Award, OUC
07/2017	Outstanding Summer Camper, Second Institution of Oceanography, Hangzhou
04/2017	Honorable Mention of Interdisciplinary Contest in Modeling (ICM)

SKILLS

Computer	<ul style="list-style-type: none">➤ Fluent in: Microsoft Office, ArcGIS, ENVI, SPSS, Git, Tableau➤ Adept at: Python, IDL, SQL
Language	<ul style="list-style-type: none">➤ Mandarin Chinese as mother tongue➤ TOEFL 96 (Reading: 23, Listening: 23, Speaking: 24, Writing: 26)