# Tian ZHAO

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Personal Website: https://tonytianzhao.github.io/

### **EDUCATION**

### Nanjing University, China

September 2013 – Present

(Expected) B.S. in Geographical Sciences

June 2017

- Cumulative GPA: 88.8/100 Major GPA: 89.4/100
- Relevant coursework: Geomorphology, Quaternary Geology and Environment, Hydraulics, Physical Oceanography, Marine Biology, Marine Chemistry, Cartography and Surveying, Geographic Modeling, Experiments in Physical Geography, GIS Technology and Application
- Graduate courses attended: Marine Sediment Dynamics, Coastal Ocean Hydrodynamics

# RESEARCH EXPERIENCE

Research Assistant November 2014 – Present

- School of Geographic and Oceanographic Sciences, Nanjing University
- Advisers: Professor Shu GAO, Professor Yaping WANG, Associate Professor Qian YU
- Projects: (for details, see <a href="https://tonytianzhao.github.io/research.html#projects">https://tonytianzhao.github.io/research.html#projects</a>)

Reconstruction of the return period - intensity relationship for coastal extreme events based on sedimentary record analysis: A case study in Jiangsu coast

- Team leader
- Sediment core analysis: grain size, chemical elements, photograph
- Graph plotting and analysis (in progress): grain size, magnetic parameters
- Result presenting (in progress): academic paper and B.S. thesis

# Numerical modeling of sediment carrying capacity (depth-averaged saturated suspended sediment concentration) in shallow coastal seas

- Main participant, in collaboration with Dr. Qian YU
- Preparation: coursework in Hydraulics, Marine Sediment Dynamics, as well as classification of previous carrying capacity formulae
- Model building: in C, Origin, and SPSS
- Result presenting: an academic paper in progress

#### FIELDWORK PARTICIPATION

- *In situ* sediment transport observation in South Yellow Sea, August 2016, participating undergraduate student.
  - Collected 165 bottles of water sample for SSC-profile study, set up the observation platform with the team, and participated in LISST, ADV, ADCP, OBS, RBR measurements.
- **Geological excursion in the Western Alps**, July 2016, team leader.
  - A 10-day English-based geological excursion in collaboration with Université d'Orléans.

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- 40 stops of observation regarding sedimentology, stratigraphy, lithology and tectonics.
- Prepared presentation materials and slides for the team, on the topic of Foehn.
- Interview: http://www.nju.edu.cn/EN/80/a7/c4662a164007/page.htm
- **Coral-reef dynamics study**, January 2016, participating undergraduate student.
  - Positioned 26 stops for study, studied the lagoon environment, sand spits, coastal dunes, ripples, wave-cut platforms, mangroves, a volcanic coast, coral-reef dynamics and DJI-drone operation, around Hainan Island, China.
- Practice of geographical sciences in Lushan Mountain, September 2015, team leader and GPSbased navigator.
  - Personal work: Positioned 29 stops, collected meteorological data of 2 representative stops, surveyed 4 strata, 5 folds, 3 faults, 2 slides, 3 reservoirs and the Poyang Lake. Studied 4 typical kinds of cultural landscapes, spatially analyzed and mapped the northern part of Lushan Mountain in a set of 6 feature-based maps in ArcGIS. Finished a report on this practice.
  - Team work: Studied 110 typical plant species and ecological succession, 6 kinds of typical soil. Measured pH, temperature, electrical conductivity, ammonia nitrogen, dissolved oxygen and flow velocity of Changchong River. Built a model of Lushan Church in SketchUp.
- **Bio-geomorphological study of** *Spartina alterniflora* **saltmarshes**, July-August 2015, participating undergraduate student and GPS-based navigator.
  - Positioned 5 profiles and 25 stops for study, photographed, counted and sampled 125 quadrats of soil and plant in *Spartina alterniflora* saltmarshes near Rudong, China.
- **Saltmarsh cliff stability study**, May 2015, participating undergraduate student.
  - Set up a RTK base station, measured 1 of 5 mudflat profiles, sampled 20 of 110 bags of surface sediment in a *Spartina alterniflora* saltmarsh near Yancheng, China.
- **Practice of General Geology**, July 2014, group leader.
  - Surveyed 18 strata, 2 folds, 2 faults, a dead volcano, a spring, and various types of rock in Jiangsu Province, China.

## **AWARDS, HONORS & SERVICE**

Excellent Student of Nanjing University (Top 5%)
 Liao's Scholarship, Nanjing University (20 Awardees)
 People's Scholarship, First Grade, Nanjing University (Top 5%)
 Class Monitor of Geography 2013
 September 2014 – Present

### **SKILLS**

- Laboratory: grain-size analysis, elemental analysis
- Observation instrument: Garmin GPS, RTK, total station, LISST, ADV, ADCP, OBS, RBR
- Software: C, ArcGIS, ERDAS IMAGINE, ENVI, SketchUp, SPSS, Origin

### STANDARDIZED EXAMS

TOEFL: 109/120 (Reading 28, Listening 28, Speaking 26, Writing 27)
 GRE: Verbal 152 (55%), Quantitative 170 (97%), Analytical Writing 3.5 (42%)
 May 8, 2016

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