Haochen Ye

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EDUCATION

Pennsylvania State University   **State College, PA, USA**
Ph.D. of Geosciences (GPA: 3.6/4.0)   2018.06 – 2023.08 (expected)
Relevant coursework: Risk analysis in Earth Sciences, Bayesian studies, Time Series analysis, Math Modeling
Honor: Earle S. Lenker Graduate Fellowship (Spring 2022)

University of Michigan   **Ann Arbor, MI, USA**
Master of Engineering in Applied Climate (GPA: 4.0/4.0)   2016.09 – 2017.12
Bachelor of Climate Science (GPA: 3.9/4.0)   2014.08 – 2016.05
Relevant coursework: Earth and climate systems dynamics, Geophysical Fluid dynamics, Climate risks, Radiative transfer, Remote Sensing, GIS application
Honor: College of Engineering Dean's list (Fall 2014 – Spring 2016)

Shanghai Jiao Tong University   **Shanghai, China**
Bachelor of Engineering in Electrical and Computer Engineering (GPA:3.6/4.0)   2012.09 – 2016.08
Relevant coursework: Data Structure, Signal and System, Calculus, Discrete Mathematics, Differential Equations and Complex Analysis, Probability and Statistics

PERSONAL EXPERIENCE

Great Lakes Simulation Multidisciplinary Design Program   **Ann Arbor, MI, USA**
Research assistant   2015.01 – 2015.12
- Use the WRF (Weather Research and Forecasting) model to simulate mesoscale storms.
- Write a code template for collaborators to calibrate the WRF model parameters.

Shanghai Astronomical Observatory   **Shanghai, China**
Data analyst intern   2015.05 – 2015.08
- Organize the historical atmospheric meteorological data and test their statistical distributions.
- Reject the hypothesis about data distribution in a previous study.

Climate and Space Engineering, University of Michigan   **Ann Arbor, MI, USA**
Teaching assistant of Earth and Space Systems Dynamics course   2017.01 – 2017.04
- Provide editable templates of homework and quiz answers in LaTeX scripts.

Great Lakes Integrated Sciences & Assessments program   **Ann Arbor, MI, USA**
Research assistant   2017.01 – 2018.04
- Process climate ensemble data and visualize the great lake effects (more precipitation near the great lakes).
- Propose multiple performance metrics that quantify the great lake effects.

Program on Coupled Human and Earth Systems   **State College, PA, USA**
Research assistant   2018.06 – 2023.08 (expected)
- Apply and benchmark key uncertainty quantification tools on climate risk impacts assessment.
- Quantify the impacts of model parametric and climate forcing uncertainty of a weather-yield statistical model.
- Provide guidance on how to choose the fastest sensitivity analysis tool under different model settings.
- Add a user-friendly manual and uncertainty quantification component to a hydrologic water balance model.

ACADEMIC PUBLICATIONS

Ye H, Nicholas RE, Roth S, Keller K (2021) Considering uncertainties expands the lower tail of maize yield projections. PLoS ONE 16(11): e0259180. https://doi.org/10.1371/journal.pone.0259180

Ye H, Nicholas RE, Srikrishnan V, Keller K (2023) Emulation methods and adaptive sampling increase the efficiency of sensitivity analysis for computationally expensive models. Preprint available: http://arxiv.org/abs/2302.12738

COMPUTER SKILLS

Programming language: R, C, C++, MatLab, Python
Applications: Microsoft Word/Excel/PowerPoint, Mathematica, Origin, ArcGIS, LaTeX

LANGUAGE

Chinese (Native), English (Professional proficiency)