

# Neng Shi

## Contact Information

GRAVITY research group  
Ohio State University  
786 Dreese Lab, 2015 Neil Avenue  
Columbus, Ohio, USA

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## Research Interests

Scientific visualization, machine learning

## Education

**Department of Computer Science and Engineering, The Ohio State University, OH**  
Ph.D. in Computer Science and Engineering, 2019-  
G.P.A. Overall 3.96/4.0

**School of Earth Sciences, Zhejiang University, Hangzhou, China**  
B.E. in Geographic Information Science, 2014-2018  
G.P.A. Overall 3.81/4.0, The last two years 3.89/4.0

## Publications

**Neng Shi**, Jiayi Xu, Skylar W. Wurster, Hanqi Guo, Jonathan Woodring, Luke Van Roekel, and Han-Wei Shen *GNN-Surrogate: A Hierarchical and Adaptive Graph Neural Network for Parameter Space Exploration of Unstructured-Mesh Ocean Simulations*, IEEE Transactions on Visualization and Computer Graphics (Proc. IEEE PacificVis 2022), 2022

**Neng Shi**, Yubo Tao *CNNs based Viewpoint Estimation for Volume Visualization*, ACM Transactions on Intelligent Systems and Technology (TIST), 2019

## Experiences

**Graduate Research Associate** Aug.2020-  
The Ohio State University

Worked on exploration and visualization of ensemble datasets with deep learning

**Summer Research Assistant Intern** July.2020-Jun.2020  
Los Alamos National Laboratory

Worked on using deep surrogate models to approximate ocean simulation functions, helping simulation parameter space exploration.

**Teaching Assistant** Jul.2017-Sept.2019  
NineChapter Algorithm

Worked as the teaching assistant of Algorithm class and Artificial Intelligence training camp. Was responsible for communicating and answering questions and reviewing the course project.

**Undergraduate Research Assistant** Jul.2017-Sept.2019  
Zhejiang University

Worked on using CNN models to estimate one given volume rendering image's viewpoint and help viewpoint selection.

**Skills**

Languages: C/C++, Python, JavaScript

Graphics and Data Visualization: OpenGL, WebGL, GLSL, D3.js

Machine Learning: PyTorch

**HONORS AND AWARDS**

University Fellowship, The Ohio State University, 2019-2020

Zhejiang University Academic Scholarship, 2014-2015, 2015-2016

Third Prize in Zhejiang University Student Programming Competition, 2016

First Prize in China NOIP (National Olympiad in Informatics in Provinces), 2012