Neng Shi

Contact Information

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

Email: shi.1337@osu.edu
Phone: 614-254-0904

Personal

Date of Birth: June 4, 1996
Nationality: Chinese

Research Interests

Scientific visualization, information 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 4.0/4.0

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 year 3.89/4.0

Publications

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

Projects

Shooting Game - An OpenGL-based Videogame Project
Zhejiang University *Apr.2016-Jun.2016* *Professor: Hongzhi Wu*
We structure gameplay in the first person shooter genre. The user can select the class in which he or she would like to play as, and then complete a level by defeating computer-controlled players of the opposing class in the battle. The game includes several challenging computer graphics elements, including collision detection between the player and enemy characters, and several very complex objects with many thousands of polygons, and animation sequences for enemy characters.

Android based Visualization of Air Pollution
Zhejiang University *Jun.2016-May.2017* *Professor: Yubo Tao*
Based on a web crawler, we accomplish the visualization of atmospheric pollutants. In an Android app, we visualize them from multiple perspectives such as thermal maps, line graphs and Voronoi diagrams. We also conclude that pollutants are geographically related across cities by further analysis.

CNN based High Efficiency Retrieval Method of Remote Sensing Image
Zhejiang University *Dec.2017-Jun.2018* *Professor: Zhenhong Du*
We use CNN to extract features of remote sensing images. Then we fine-tune the network structure to learn compact binary codes. Finally, we combine binary codes and high-dimensional vectors for image retrieving.

CNNs based Viewpoint Estimation for Volume Visualization
Zhejiang University *Dec.2017-Jul.2018* *Professor: Yubo Tao*

We first design an overfit-resistant image rendering pipeline to generate the training images with accurate viewpoint annotations, and then train a category-specific viewpoint classification network to estimate the viewpoint. We also introduce a CNN feature-based image similarity measure for similarity voting based viewpoint selection.

Experiences

Software Engineer Sept.2014-Jun.2017
Zhejiang Unversity Broadcasting and Television Station

My work mainly includes system backend development. In the three years, I participate in the development of the TV station's Recruiting System, Interview System, Equipment Access System, Course System and so on. In the third year, I lead the integration of the Workflow system as the head of the group. At the same time, I am responsible for the training of new members.

Teaching Assistant Jul.2017-Sept.2019
NineChapter Algorithm

NineChapter Algorithm is a company aimed at helping Chinese get better jobs in North America. I am the teaching assistant of Algorithm class and Artificial Intelligence training camp. I am responsible for communicating and answering questions for students and reviewing the course project for each one.

Language Ability

Chinese(native)
English(fluent) TOEFL (iBT) score: Overall 103, Speaking 24
C++, Python, Java, Matlab, JavaScript

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