Jiahao Xu

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Education

Virginia Tech — VA, United States
Doctor of Philosophy in Computer Science & Applications program — *08/2023 - present*
- Advisor: Chris North

Tufts University — MA, United States
Master of Science of Computer Science — *01/2021 - 05/2023*
- GPA: 3.80

University of California, Irvine — CA, United States
Exchange Student Program — *04/2019 - 10/2019*
- GPA: 3.62 (Spring Quarter), 3.543 (Summer Session)

Chang'an University — Xi'an, China
Bachelor of engineering — *08/2016 - 06/2020*
- GPA: 3.29
- Major: Computer Science and Technology

Research Experience

Graduate Researcher — Virginia Tech
Advisor: Chris North — *09/2022 – 05/2023*
- Explanations of Dimension Reduction Plots

Graduate Researcher — Tufts University
Advisor: Remco Chang — *09/2022 – 05/2023*
- Explore the possibility of implementing hypothesis-driven visual analysis

Internship

Research Internship — Wuhan
Tencent Research and Development Center — *10/2019 – 12/2019*
- Deep learning model test and refine

Projects

VAST2019-MC3 | *JavaScript, D3* — 01/2022 – 05/2022
- Develop an interactive visualization system for VAST2019 MC3
- The dataset contains messages from an APP before, during, and after an earthquake.
- The program consists of a Timeline, a Map, and a Word Bubble whose size depends on the frequency of the word
- This is a final project for CS178(Visual Analytics) at Tufts

Network Programming | *Python, Socket programming* — 09/2021 – 12/2021
- Construct an encrypted P2P instant messager
- Generates an RSA keypair and sends a message over a network, followed by its signature
- Construct a Port Scanner
- Construct a Port Scanner Detector

Visulization of Convex Hull Construction | *C++,LEDA* — 09/2021 – 12/2021
- Implemented the Incremental Approach of Convex Hull construction
- Visualize how the construction works step by step
- This is a final project for CS163(Computational Geometry) at Tufts

Vehicle Queue Control | *Python, Virtual Simulator* — 01/2020 – 06/2020
- Construct Carla simulator, which is an open-source autonomous driving simulator
- Display a vehicle queue control program
- This program uses a constant time-gap spacing strategy to change the acceleration of the vehicle dynamically

3D Image Reconstruction | *Python, Meshlab* — 04/2019 – 06/2019
- Calibrated the camera by using the scans of a checkboard
- Triangulated to get the meshes of the object
- Reconstructed the 3D model of the object

Technical Skills

Languages: C++, Python, JavaScript
Framework: React, Flask, Django
Libraries: D3, OpenCV, OpenGl, LEDA
Applications: Wireshark, Unity, MeshLab