Jiahao Xu

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EDUCATION

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

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

Tufts University   MA, United States
Master of Science of Computer Science   *01/2021 - 12/2022(estimated)*
- GPA: 3.75(so far)

RESEARCH EXPERIENCE

The Multi-scale Fast Network for Image Super-resolution   01/2019 – 04/2019
Advisor: Yang Su   *Wuhan University of Technology*
- Test the accuracy and speed of the proposed multi-scale fast network model for image super-resolution
- Compare the difference between the proposed network model and those existing models

Summer Research | *A Grammar for Hypothesis-Driven Visual Analysis*   06/2022 – 08/2021
Advisor: Remco Chang   *Tufts University*
- Develop a parser for Hypothesis Grammar. The parser can validate an input hypothesis based on the hypothesis grammar
- Implement Hypothesis Grammar on VAST challenge

Master Thesis | *Hypothesis Grammar Visualization*   09/2022 – 05/2023(expected)
Advisor: Remco Chang   *Tufts University*
- This is one-year long research whose outcome will be a thesis regarding the research content

PROJECTS

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

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

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

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

Visualization for VAST2019-MC3 | *JavaScript, D3*   01/2022 – 05/2022
- Develop an **interactive** visualization program 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

Publication

The Multi-scale Fast Network For Image Super-resolution

*Yonsheng Duan, Yang Su, Wei Wu, Han Wang, **Jiahao Xu***

- Published on the International Conference on Electronics Information and Emergency Communication 2019
- electronic ISSN:1573-7497

Technical Skills

Languages: C++, Python, JavaScript
Libraries: D3, OpenCV, OpenGL, LEDA
Applications: Wireshark, Unity, MeshLab