

Jiahao Xu

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EDUCATION

Chang'an University

Bachelor of engineering

- GPA: 3.29
- Major: Computer Science and Technology

Xi'an, China

08/2016 - 06/2020

University of California, Irvine

Exchange Student Program

- GPA: 3.62 (Spring Quarter), 3.543 (Summer Session)

CA, United States

04/2019 - 10/2019

Tufts University

Master of Science of Computer Science

- GPA: 3.75(so far)

MA, United States

01/2021 - 12/2022(*estimated*)

RESEARCH EXPERIENCE

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

Visualization 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 messenger
- 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

TECHNICAL SKILLS

Languages: C++, Python, JavaScript

Libraries: D3, OpenCV, OpenGL, LEDA

Applications: Wireshark, Unity, MeshLab