

# YUEHAO WANG

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## INTRODUCTION

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I am a junior undergraduate majoring in Computer Science at ShanghaiTech University. My research interests include Computer Graphics, Computer Vision and Deep Learning. My recent research focus on neural rendering technology and graph neural networks. I am also passionate about website design and game development.

## EDUCATION

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### ShanghaiTech University

2017-2021

Bachelor of Science

Computer Science, School of Information Science and Technology

**Selected Courses:** Computer Programming (A), Linear Algebra (A), Computer Architecture (A), Web and Text Mining (A+), Operating Systems (A), Artificial Intelligence (A), Linear Algebra for Information Science (A), Computer Graphics (A+)

## EXPERIENCE

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### Virtual Reality and Virtual Computing Center

Jul 2018 - Present

*Undergraduate Student Researcher*

*ShanghaiTech University, Shanghai*

- *Advisor: Prof. Jingyi Yu*
- I mainly work on research projects related to Computer Graphics, Computer Vision and Deep Learning. My recent work focus on neural rendering and graph neural networks. I am also a designer and maintainer of the lab's website.

### Attitude Research Lab

Sep 2018 – Present

*Technical Support*

*ShanghaiTech University, Shanghai*

- *Advisor: Prof. Lifeng Yang*
- My major work include generation of testing data and analysis of experimental data, as well as developing and maintaining experiment platforms and management systems.

### Institute of Mathematical Sciences

Sep 2019 – Jan 2020

*Teaching Assistant of MATH1112*

*ShanghaiTech University, Shanghai*

- *Instructor: Prof. Yunfeng Jiang*
- Linear Algebra (MATH1112) is a fundamental mathematic course for undergraduates. This course covers basic contents in linear systems, determinants, linear transformation, vector spaces, etc. My responsibility in this course includes grading students' homework and exams, giving discussions to students every week, as well as answering students' questions.

### School of Information Science and Technology

Sep 2018 – Jan 2019

*Teaching Assistant of CS100*

*ShanghaiTech University, Shanghai*

- *Instructor: Prof. Laurent Kneip*
- Introduction to Computer Programming (CS100) is an introductory course for all students majoring in Computer Science. This course mainly teaches students essential programming skills in C/C++ and Python. As a teaching assistant, my duty is to give recitations to students every week, grade quizzes and exams, also answer students' questions.

- Partners: Jason Wu (NYU), Zhen Zhu (Stanford), Kevin Huang (Stanford)
- UTech Academy Summer Camp is oriented to 9th-12th grade students and freshmen in universities, who are interested in artificial intelligence technology. As a teaching assistant of data science track, my responsibility includes giving students online session on Python basis, grading students' homework submissions, holding one-on-one office hour for review and discussion of data science algorithms.

## HONORS

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- Citi Financial Innovation Application Competition: 1st Place (Nov 2019)  
**Issuer:** Citigroup
- 2019 The Challenge Cup: First Prize (May 2019)  
**Issuer:** Shanghai Municipal Education Commission
- 2018 hackShanghai Hackathon: 2nd Place (Jul 2018)  
**Issuer:** THE Hack Team

## PUBLICATIONS

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1. Minye Wu, Yuehao Wang, Qiang Hu, Jingyi Yu, **Multi-view Neural Human Rendering**, accepted by *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020.  
[\[Pdf\]](#) [\[Code\]](#)

## SKILLS

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### Languages

Chinese (native), English (limited working proficiency, CET-6)

### Programming Languages

Python (proficient), C/C++ (highly familiar), HTML5/JavaScript (proficient), MATLAB, C#, R

### Frameworks & Software Tools

NumPy (highly familiar), PyTorch (highly familiar), SciPy, Scikit-learn, Pandas, Unity, OpenGL, Qt, OpenCV, NodeJs, ReactJs, Django, LaTeX, Docker, Nginx, Visual Studio Code, Jupyter Notebook, Sublime Text, Microsoft Office

### Operating Systems

macOS (daily use), GNU/Linux (proficient), Windows

## PROJECTS

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**Reinforcement Cache** We adopt a reinforcement learning-based method to cache replacement strategy, aiming to improve the miss rate of existing traditional cache replacement policies. The main idea of modeling is to regard the strategy as a MDP so that we can employ DRL to learn how to make decision. [\[Pdf\]](#) [\[Code\]](#)

**Offer Pool** Application for foreign universities is a tough and important problem for students who want to study abroad. We utilize data mining techniques to predict admission of target universities. With text data crawling from related websites, we train a model which receives your major, TOEFL, GRE, GPA, target universities, etc., and output probabilities that target universities will give you offers. (*Excellent course project of Web and Text Mining*)

**Shadow Scent** A mobile game which is friendly to visually impaired people. After desk research and interviews about entertainment of visually impaired people, we design this game aiming to improve

video game's user experience and sociability for those vulnerable people. [[Github](#)]

*(The best course project of Design Thinking Roadshow)*

**Pylash** is a 2D game framework in Python, which was developed when I was a high school student. Inspired by my experience designing and developing video games, this framework is integrated with various modules including 2D graphics rendering (based on PySide2), event systems, tween animation, media systems, SAT collision detection, etc. [[Github](#)]