

# Yu Che (Jeffrey) Wang

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## EDUCATION

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**University of Illinois at Urbana-Champaign**

**May 2021**

Bachelor of Science, Computer Science

GPA: 4.00/4.00

### Related Coursework

Data Structures

Linear Algebra and Probability

Web Programming (in progress)

Machine Learning

Signal Processing

Database Systems (in progress)

## TECHNICAL SKILLS

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- Python (PyTorch, TensorFlow, NumPy, SciPy, Pandas, Matplotlib, OpenCV, scikit-learn)
- C, C++, Java, HTML, CSS, JavaScript, SQL, MATLAB, MS Office

## RELEVANT RESEARCH EXPERIENCE

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**Undergraduate Research Assistant**, University of Illinois

**October 2018 - Present**

Department of Computer Science, Advisor: Prof. Svetlana Lazebnik

- Applied self-supervised learning and convolutional neural network to localize sound sources in videos
- Investigated on different models (AlexNet, ResNet, UNet) and hyperparameters to improve performance
- Utilized image segmentation network and audio separation algorithms to enhance localization accuracy

**Summer Research Intern**, Academia Sinica, Taiwan

**May 2018- August 2018**

IIS Computer Vision Lab

- Provided solutions to domain transfer problems with insufficient data: applying conditional generative network to augment CUHK Face Sketch Database
- Utilized singular value decomposition to reduce dimensionality to speed up computation
- Created artificial human face sketches for any input human face photo by calculating transfer matrix between the sketch and photo domain
- Attended group meetings and presented paper reviews

**Summer Research Intern**, National Taiwan University

**May 2017- August 2017**

Mobile and Vehicular Network Lab, Department of Computer Science and Information Engineering

- Utilized orthogonal frequency-division multiplexing to transmit light signals from leading to following car
- Conducted on-road experiment to test the robustness of the visible light communication system
- Used MATLAB to analyze experimental data and discovered factors that affect the accuracy of the system

## WORK EXPERIENCE

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**Mathematics and Physics Tutor**, Taiwan

**May 2018 – August 2018**

- Used self-compiled materials to teach high school students SAT Physics and AP Calculus
- Students improved 150 points and 2 grades in SAT Physics and AP Calculus respectively

## HONORS AND ACTIVITIES

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**Association for Computer Machinery**, University of Illinois

**January 2018 – Present**

- Attend artificial intelligence and web programming special interest groups' meetings and lectures
- Joined hackathons and contributed to open source projects

**National Team Selection Program for Asian and International Physics Olympiad**, Taiwan

**April 2017**

- Ranked 9<sup>th</sup> among over 3,000 participants