

# YUJIE ZHU

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## EDUCATION

**University at Buffalo** Buffalo, U.S.  
*Doctor of Philosophy in Computer Science and Engineering* Sept. 2024 –  
• **Presidential Fellowship**

**New York University** New York, U.S.  
*Master of Science in Computer Engineering* Sept. 2022 – May 2024  
• **GPA:** 3.90  
• **Scholarship:** \$7000.

**Southern University of Science and Technology** Shenzhen, China  
*Bachelor of Science in Applied Mathematics* Aug. 2017 – July 2022  
• **GPA:** 3.57  
• **Honors:** Outstanding Graduates of Mathematics Department, 2022;  
Merit Student Scholarship for Exceptional Performance, 2019–2020;

## PUBLICATIONS

Yujie Zhu. (2021). [Self-supervised Learning for Small Shot COVID-19 Classification](#). *2021 3rd International Conference on Information Technology and Computer Communications* (pp. 36–40). ACM ISBN 978-1-4503-8988-4/21/06.

## RESEARCH EXPERIENCE

**COVID-19 CT Image Classification**  
*Project Assistant* Sept. 2020 – Mar. 2021  
• Developed four COVID-19 CT image CNN classification models based on transfer learning and self-supervised learning with TensorFlow to improve the accuracy of the test set by nearly 30%.  
• Applied a residual structure and multi-task learning with Python to enhance image classification performance, the highest accuracy of the training set reaches 95.31%.

## PROJECTS

**Detection and Classification of Traffic Signs and Lanes** Nov. 2021 – Dec. 2021  
*Machine Learning Course*

- Compared the performance of detection and classification models based on YOLO, Resnet V1 101 and Fast R-CNN when faced with blurry and noisy training sets.
- Applied the models to SUSTech's night lane photos for testing.

**Recap SkrGAN Model of Medical Imaging** Nov. 2019  
*Introduction to AI Course, Team Leader*

- Organized group members to read literature and write literature reviews about SkrGAN; responsible for making schedules and overseeing the project's progress.
- Analyzed the model's application in clinical diagnosis and old picture restoration, as well as its potential future developments.

## VOLUNTEERING

**CIEE Council on International Educational Exchange** Yamaguchi, Japan  
*International volunteer teacher* July 2019

- Taught 50 local junior high students Chinese culture in Japan.
- Hold the English workshop for elementary school students to enhance their English proficiency through multiple interactions.

## TECHNICAL SKILLS

Java, Python, C++, TensorFlow, MATLAB, R, LaTeX, Wireshark.