

# Ziyue “Alan” Xiang

## Research Assistant

Graduate student researcher with experience in machine learning, specialized in using computer vision approaches to tackle media forensics problems.



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ziyue-alan-xiang

xziyue

## WORK EXPERIENCE

### Research Assistant

VIPER Lab, Purdue ECE

*Aug. 2020–Present*

- Investigating reliable and cost-effective approach to counter deepfake and other types of media forgery technique that may bring substantial threat to the credibility of everyday information

### Research Assistant

SOS+CD Lab, iSchool, Syracuse University

*Aug. 2018–July 2020*

- Developed automated tools for image manipulation detection in science
- Assisted the application of US ORI grant: “Human-centered automatic tracing, detection, and evaluation of image and data tampering”

### Teaching Assistant

EECS, Syracuse University

*Jan. 2020–May 2020*

- Teaching assistant of CIS-375: Discrete Mathematics, lectured by Prof. Andrew C. Lee
- Participated in grading, hosting office hours, preparing recitation materials
- Researched and experimented the transition to on-line learning during COVID-19 pandemic

## EDUCATION

### Ph.D. in Electrical & Computer Engineering

Purdue University

*Aug. 2020–Present*

### MSc. in Computer Science

Syracuse University

*Aug. 2018–May 2020*

### BSc. in Information & Computing Science

Sun Yat-sen University, Guangdong, China

*Sept. 2014–June 2018*

- Best undergraduate thesis award

## SKILLS

Data Mining

Data Visualization

C++

Julia

Lua

Haskell

HTML

CSS

JavaScript

Linux security

Cybersecurity

tensorflow

Apache Spark

## KEY Skills

- Python
  - Proficient in the usage of numpy and scipy, which maximizes Python’s performance
  - Experienced at parallelizing Python, as well as extending Python with Cython or C++
- Machine learning (computer vision)
  - Studied and understood the mathematical derivation of most off-the-shelf machine learning algorithms
  - Familiar with machine learning toolkits (e.g. scikit-learn) and computer vision toolkits (e.g. OpenCV)
- $\text{\LaTeX}$ 
  - Familiar with advanced  $\text{\LaTeX}$  technologies such as  $\text{\LaTeX}3$  and  $\text{\Lua\LaTeX}$
  - Active package developer in  $\text{\LaTeX}$  community (e.g. `luaprotable`)

## LANGUAGES

English



Chinese(Mandarin)



Cantonese



## TRAINING/CERTIFICATES

- Graduate teaching assistant training (2020)
- CITI Program–Responsible Conduct of Research (2019)
- CITI Program–Biomedical Research Investigators and Key Personnel (2020)