

# Chulin Xie

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**Website:** alphapav.github.io

**GitHub:** AlphaPav

## Education

### University of Illinois at Urbana–Champaign

PhD in Computer Science

Advisor: Professor Bo Li. *GPA: 4.0/4.0.*

Illinois, US

Jan. 2021 – Present

### Zhejiang University

B.S. in Digital Media Technology, CS Department

*GPA: 3.92/4.0. Rank: 3/59.*

Hangzhou, China

Sept. 2016 – Jun. 2020

## Research interests

Federated learning, distributed optimization

Adversarial robustness, fairness, privacy

Autonomous driving, 3D vision

## Selected publications

### **CRFL: Certifiably Robust Federated Learning against Backdoor Attacks**

**Chulin Xie**, Minghao Chen, Pin-Yu Chen, Bo Li.

*International Conference on Machine Learning (ICML), 2021.*

### **Style-based Point Generator with Adversarial Rendering for Point Cloud Completion**

**Chulin Xie\***, Chuxin Wang\*, Bo Zhang, Hao Yang, Dong Chen, Fang Wen.

*Conference on Computer Vision and Pattern Recognition (CVPR), 2021.*

### **DBA: Distributed Backdoor Attacks against Federated Learning**

**Chulin Xie**, Keli Huang, Pin-Yu Chen, Bo Li.

*International Conference on Learning Representations (ICLR), 2020.*

### **Attack-Resistant Federated Learning with Residual-based Reweighting**

Shuhao Fu, **Chulin Xie**, Bo Li, Qifeng Chen.

*Workshop on Towards Robust, Secure and Efficient Machine Learning at AAAI, 2021.*

## Experience

**Alibaba Group**, Taobao Technology

Summer 2021

Topic: Metric learning

**Microsoft Research Asia**, Visual Computing Group

Jan. 2020 – Aug. 2020

Supervisor: Dr. Bo Zhang and Dr. Dong Chen

Topic: Point cloud completion, Differentiable rendering, Adversarial learning

**UIUC**, Secure Learning Lab

July. 2019 – Sept. 2019

Supervisor: Prof. Bo Li, Dr. Pin-Yu Chen and Prof. Qifeng Chen

Topic: Federated learning, Adversarial robustness

**ByteDance**, Efficiency Engineering Group  
Back-end Engineer Intern

Feb. 2019 – May 2019

Talks

Guest Lecture at UIUC CS 598: Special Topics on Adversarial ML, remote, Dec. 2020  
Federated Learning One World Seminar, remote, Sept. 2020

Services

Conference reviewer: ICCV 2021, CVPR 2021  
Student co-organizer: Workshop on Adversarial Machine Learning in Real-World  
Computer Vision Systems and Online Challenges at CVPR 2021

Honors and  
scholarships

Outstanding Undergraduate in Zhejiang Province	2020
First-Class Scholarship for Outstanding Students of Zhejiang University	2020
1st Place for ImageCLEF 2019 VQA in Medical Domain Competition	2019
1st Prize of Mathematical Contest in Modeling of Zhejiang University	2018
National 2nd Prize for China's Undergraduate Mathematical Contest in Modeling	2018