Yicheng Zhang

University of California, Riverside +1 9492312128 Website: yichez.site

EDUCATION

University of California, Riverside

Riverside, CA

yzhan846@ucr.edu

P.h.D in Electrical Engineering, GPA: 4.00/4.00

2021.9-Current

- Advisors: Professor Nael Abu-Ghazaleh

University of California, Irvine

Irvine, CA

M.S. in Computer Engineering, GPA: 3.78/4.00

2018.9-2021.6

- Advisors: Professor Mohammad Abdullah Al Faruque and Professor Zhou Li
- Thesis: "Stealing Deep Learning Model Secret through Remote FPGA Side-channel Analysis."

Sichuan University

Chengdu, China

B.S. in Electrical Engineering and Automation, GPA: 3.53/4.00

2014.9-2018.6

- Thesis: "Fault detection in power transmission system using Machine Learning."

EXPERIENCE

University of California, Riverside

Riverside, CA

Research Assistant in Secure and Efficient Architectures and Systems (SEAS) Lab

2021.9-Current

- AR/VR Security, Computer Architecture Support for Security.
- I worked with my advisor Prof. Nael B. Abu-Ghazaleh on research topics including security in AR/VR systems and side-channel attack & defense on computer architecture.

University of California, Irvine

Irvine, CA

Research Assistant in Embedded & Cyber-Physical Systems Lab

2018.9-2021.3

- Embedded and Cyber-Physical System Security, Computer Microarchitecture.
- I worked with Prof. Mohammad Abdullah Al Faruque on research topics including security in Embedded & Cyber-Physical Systems and side-channel attack & defense.

University of California, Irvine

Irvine, CA

Research Assistant in Data-driven Security and Privacy (DSP) Lab

2018.9-2021.3

- Machine learning privacy and defense.
- I worked with Prof. Zhou Li on research topics including machine learning privacy attack and GPU security.

University of California, Irvine

Irvine, CA

Teaching Assistant in Department of Electrical Engineering and Computer Science

2019.12-2021.3

- Assisted course instructors in course website design, grading, and lecturing.

PUBLICATIONS

Wei Junyi*, Yicheng Zhang*, Zhe Zhou, Zhou Li, and Mohammad Abdullah Al Faruque, "Leaky DNN: Stealing Deep-Learning Model Secret with GPU Context-Switching Side-Channel.", 2020 50th Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN), Valencia, Spain, June, 2020.
*Junyi Wei and Yicheng Zhang are both first author.

- 2. Yicheng Zhang, Rozhin Yasaei, Hao Chen, Zhou Li and Mohammad Abdullah Al Faruque, "Poster: Stealing Neural Network Structure through Remote FPGA Side-channel Analysis", In 29th ACM/SIGDA International Symposium on Field-Programmable Gate Arrays (FPGA), February, 2021.
- 3. Yicheng Zhang, Rozhin Yasaei, Hao Chen, Zhou Li and Mohammad Abdullah Al Faruque, "Stealing Neural Network Structure through Remote FPGA Side-channel Analysis", In IEEE Transactions on Information Forensics and Security (TIFS), August, 2021.
- 4. Yicheng Zhang, Jiasi Chen, Nael B. Abu-Ghazaleh, "It's all in your head(set): side-channel attacks on augmented reality systems", To appear in USENIX Security Symposium, August, 2023.

TEACHING

• **Teaching Assistant** at University of California, Irvine *EECS 150 Continuous-Time Signals and Systems*

Winter 2019

• Teaching Assistant at University of California, Irvine EECS 111 Sytem Software Spring 2020

• **Teaching Assistant** at University of California, Irvine *EECS 40 Object Oriented System Programming*

Fall 2020

• Teaching Assistant at University of California, Irvine CS 125 Next Generation Search Systems

Winter 2021

• **Teaching Assistant** at University of California, Irvine *EECS 112 Organization of Digital Computers*

Spring 2021

COMPUTER SKILLS

<u>Languages</u>

• **Programming:** C/C++, CUDA C, Python, Verilog, Bash Script(Linux), Java

• English: Fluent

• CAD Tools: Altera Quartus, Xilinx ISE, Vivado, Vivado HLS

- **EXAM:** Score 102 for TOEFL iBT test

• Softwares: Matlab, Arduino, Unity, Unreal Engine

• Chinese: Native

SCHOLARSHIPS AND AWARDS

• Sichuan University Scholarship (China)

• Student Travel Grant for ACM Conference on Computer and Communications Security

2021 2021

• Student Travel Grant for USENIX Security Symposium

2021,2022

2021

• Student Travel Grant for IEEE Symposium on Security and Privacy

2021,2022

• Dean's Distinguished Fellowship Award (UC Riverside)

2014,2015,2016,2017

• Outstanding Students Leader of Sichuan University

2016.10

Extracurricular Activities

• Member at University of California Irvine Cycling Club

2018-Current

• Member at Chinese Students Scholars Association at UCI (UCI-CSSA)

2018–Current

• Head of Practice Department of Sichuan University Cycling Club

2014–2018

• Volunteers at 120th Anniversary of Sichuan University

2016.9