Xingyu Chen

xic063@ucsd.edu
https://xingyuchen.me

EDUCATION University of California San Diego (UCSD)

Fall 2022 – Present

Ph.D. in Computer Science and Engineering

Advisor: Prof. Xinyu Zhang

University at Buffalo (UB), the State University of New York (SUNY)

August 2018 – June 2021

B.S in Computer Science with Distinction

Overall GPA: 3.69

Advisor: Prof. Wenyao Xu

EXPERIENCE Researcher, Mobile, Emerging Technologies & Applications (META) Lab August 2021 – August 2022

University of Colorado Denver Supervised by Prof. Zhengxiong Li

Research Assistant, Embedded Sensing and Computing (ESC) Group August 2018 – August 2021

University at Buffalo, SUNY Supervised by Prof. Wenyao Xu

AWARDS Best Student Paper Award, IEEE International Conference on Health Informatics (ICHI) 2022

IEEE COVID-19 Sensor Informatics Challenge

Runner-up Award (Second place), IEEE Healthcare Summit (IHS)

2021

Dean's List Fall 2018, Spring & Fall 2019, Spring 2020

Best Paper Award, SenSys'19

2019

PUBLICATIONS

- [1] *Xingyu Chen, *Zhengxiong Li, Srirangaraj Setlur, Wenyao Xu. "Exploring racial and gender disparities in voice biometrics", In: *Scientific Reports* (*Co-first author) (Journal article).
- [2] **Xingyu Chen**, Xinmin Fang, Wenchuan Wei, Wenyao Xu, Zhengxiong Li. "Poster: Exploring an Extensible Children Game Framework based on Augmented Reality Building Blocks", In: *ACM Conference on Embedded Networked Sensor Systems* (SenSys'21) (Poster)
- [3] *Xinmin Fang, *Xingyu Chen, Wenyao Xu, Zhengxiong Li. "Poster: Enhanced Virtual Reality: Exploring an Immersive and Realistic Virtual Reality Training for Nursing", In: *ACM Conference on Embedded Networked Sensor Systems* (SenSys'21) (*Co-first author) (Poster)
- [4] **Xingyu Chen**, Chenhan Xu, Baicheng Chen, Zhengxiong Li, Wenyao Xu. "Poster: In-Ear Thermometer: Wearable Real-time Core Body Temperature Monitoring", In: *ACM Conference on Embedded Networked Sensor Systems* (SenSys'20) (Poster)
- [5] Huining Li, **Xingyu Chen**, Xiaoye Qian, Huan Chen, Zhengxiong Li, Soumyadeep Bhattacharjee, Hanbin Zhang, Ming-chun Huang Wenyao Xu. "An Explainable COVID-19 Detection System based on Human Sounds", In: *The IEEE/ACM international conference on Connected Health: Applications, Systems and Engineering Technologies* 2022(CHASE'22) (Conference full paper)
- [6] Zhengxiong Li, Baicheng Chen, **Xingyu Chen**, Chenhan Xu, Yuyang Chen, Feng Lin, Changzhi Li, Karthik Dantu, Kui Ren, Wenyao Xu. "Reliable Digital Forensics in the Air: Exploring an RF-based Drone Identification System", In: *The ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies* (*UbiComp'22*) (**Conference full paper**)
- [7] Zhengxiong Li, Baicheng Chen, **Xingyu Chen**, Huining Li, Chenhan Xu, Feng Lin, Chris Xiaoxuan Lu, Kui Ren, Wenyao Xu. "SpiralSpy: Exploring a Stealthy and Practical Covert Channel to Attack Air-gapped Computing Devices via mmWave Sensing", In: *The Network and Distributed System Security* (NDSS'22) Symposium (Conference full paper)

- [8] Chenhan Xu, Huining Li, Zhengxiong Li, **Xingyu Chen**, Aditya Singh Rathore, Hanbin Zhang, Kun Wang, Wenyao Xu "The Visual Accelerometer: A High-fidelity Optic-to-Inertial Transformation Framework for Wearable Health Computing", In: *the IEEE International Conference on Health Informatics* 2022 *ICHI* (Conference paper) [Best student paper award]
- [9] Huining Li, Huan Chen, Chenhan Xu, Anarghya Das, **Xingyu Chen**, Zhengxiong Li, Jian Xiao, Ming-Chun Huang, Wenyao Xu "Privacy computing using deep compression learning techniques for neural decoding", In: *Smart Health* (**Journal paper IF = 2.71**)
- [10] Chenhan Xu, Huining Li, Zhengxiong Li, Hanbin Zhang, Aditya Singh Rathore, **Xingyu Chen**, Kun Wang, MING-CHUN Huang, Wenyao Xu. "CardiacWave: A mmWave-based Scheme of Non-Contact and High-Definition Heart Activity Computing", In: *ACM Conference on Pervasive and Ubiquitous Computing* (*UbiComp'21*) (Conference full paper)
- [11] Baicheng Chen, Zhengxiong Li, Huining Li, **Xingyu Chen**, Chenhan Xu, Wenyao Xu. "ThermoWave: A New Paradigm of Wireless Passive Temperature Monitoring via mmWave Sensing", In: *ACM International Conference on Mobile Computing and Networking* (*MobiCom'20*) (Conference full paper)
- [12] Hanbin Zhang, Gabriel Guo, Emery Comstock, Baicheng Chen, **Xingyu Chen**, Matthew Stafford, Lora Cavuoto, Jeanne Langan, Wenyao Xu. "RehabPhone: A Software-Defined Tool using 3D Printing and Smartphones for Personalized Home-based Rehabilitation", In: *ACM International Conference on Mobile Systems, Applications, and Services* (*MobiSys'20*) (Conference full paper)
- [13] Zhengxiong Li, Baicheng Chen, Zhuolin Yang, Huining Li, Chenhan Xu, **Xingyu Chen**, Kun Wang, Wenyao Xu. "FerroTag: A Paper-based mmWave-Scannable Tagging Infrastructure", In: *ACM International Conference on Mobile Computing and Networking* (SenSys'19) (Conference full paper) [Best paper award]

SERVICES

Artifact Evaluation Committee, 5th International SenSys/BuildSys Workshop on Data
Volunteer Judge, CoorsTek Denver Metro Regional Science and Engineering Fair
Feb-2022
Teaching Assistant, University of Colorado Denver

• CSCI 4771/5771 Introduction to Mobile Computing.

Fall-2021

• CSCI 4773/5773 Introduction to Emerging System Security.

Spring-2022

Presenter, University at Buffalo CSE Open House Event Project Demo

2018, 2019

COMMERCIAL PRODUCTS

Unity - Steam Networking Framework (Unity, C#)

2017

One of the first few solutions of Steam multiplayer networking for Unity Engine. It was developed entirely by me solely. It is a low-level networking framework to connect Unity Component System and Steam P2P network services. It is used by commercial games such us RUSSIA BATTLEGROUNDS, a battle royale game that supports up to 32 players at the same time.

Spark Dimension (Unity, C#)

2014

A 3D sandbox video game developed entirely by me solely when I was 14 years old. This game sold a total of about 8,000 copies worldwide on Steam, with a total profit of about \$15,000. This game was covered by numerous gaming media such as *ali213.com*, *indienova*, *SteamCN*, *and Baidu Baike*.

REFEREES

Prof. Xinyu Zhang Email: xyzhang@ucsd.edu Associate Professor University of California San Diego

Prof. Wenyao Xu

Email: wenyaoxu@buffalo.edu

Professor, Associate Department Chair University at Buffalo

Prof. Zhengxiong Li Email: zhengxiong.li@ucdenver.edu Assistant Professor University of Colorado Denver