

XINGYU CHEN

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EDUCATION

University at Buffalo, the State University of New York (SUNY) *August 2018 - Present*
B.S in Computer Science, 2022 *Overall GPA: 3.84*
Department of Computer Science and Engineering

PUBLICATIONS

Poster: In-Ear Thermometer: Wearable Real-time Core Body Temperature Monitoring
Xingyu Chen, Chenhan Xu, Baicheng Chen, Zhengxiong Li, Wenyao Xu

- Accepted by ACM Conference on Embedded Networked Sensor Systems (Sensys), 2020.

ThermoWave: A New Paradigm of Wireless Passive Temperature Monitoring via mmWave Sensing

Baicheng Chen, Zhengxiong Li, Huining Li, Xingyu Chen, Chenhan Xu, Wenyao Xu

- Accepted by ACM International Conference on Mobile Computing and Networking (Mobicom), 2020.

RehabPhone: A Software-Defined Tool using 3D Printing and Smartphones for Personalized Home-based Rehabilitation

Hanbin Zhang, Gabriel Guo, Emery Comstock, Baicheng Chen, Xingyu Chen, Matthew Stafford, Lora Cavuoto, Jeanne Langan, Wenyao Xu

- Accepted by ACM International Conference on Mobile Systems, Applications, and Services (Mobisys), 2020.

FerroTag: A Paper-based mmWave-Scannable Tagging Infrastructure

Zhengxiong Li, Baicheng Chen, Zhuolin Yang, Huining Li, Chenhan Xu, Xingyu Chen, Kun Wang, Wenyao Xu

- Accepted by ACM Conference on Embedded Networked Sensor Systems (Sensys), 2019.

NOTABLE PROJECTS

Dragonfly Programming Language (C/C++, CUDA, LLVM, Assembly)

A GPU programming language based on LLVM with a handwritten parser.

mRehab

mRehab is a novel in-home rehabilitation system, using 3D printing technologies, smart devices and machine learning algorithms to provide feedback in long-term rehabilitation and advances the current standard of care.

ALight Renderer Complex

ALight Renderer Complex is a combination of various rendering technologies, written in C++, which is used for research and self-education purpose.

- **ALight Creator**, a Unity-Like Engine using ImGUI
- **ALight-OpenGL**, a OpenGL Renderer for ALight
- **ALight-Raster**, a CPU rasterizer for ALight

- **ALight-RayCPU**, a CPU raytracer for ALight
- **ALight-RayCuda**, a GPU raytracer for ALight using Optix

ACS/Orange Lanuage

A basic Programming Language running on DotNet framework.

Unity - Steam Networking Framework

A low level networking framework for Unity Engine to achieve multiplayer through Steam P2P network services.

TECHNICAL SKILLS

Programing Languages	Experienced in C/C++, C#, Python, scala,JavaScript Comfortable with Java,Typescript,Swift,VisualBasic,Assembly
GameEngine	Unity Engine, Unreal Engine, GameMaker Studio
3D Graphic	OpenGL,Vulkan,CUDA OptiX,GLSL,
Compiler	Comfortable with Lex,Yacc.
Machine learning	Comfortable with Pytorch Had developed a Compiler Generator by self.

EXPERIENCE

Embedded Sensing and Computing Lab, SUNY Buffalo *Undergraduate Researcher*

August 2018 - Present

- Working as an Undergraduate Researcher under the instruction of Prof Wen Yao Xu.
- Implemented image-to-image GAN for millimeter wave sensing.
- Research on Smart Health for mRehab Project

AWARDS

Dean's List, Fall 2018, Spring 2019.