Christine Wang

Seattle, WA | (206)-830-0731 | cwang72@uw.edu | linkedin.com/in/christine-wang-702

EDUCATION

University of Washington, *Seattle, WA*
Master's of Electrical and Computer Engineering — *Sep 2021 - Present*
- Relevant courses: Computer Vision with Big Data, Deep Learning in Computer Vision, Machine Learning in Cybersecurity

National Chiao Tung University (NCTU), *Hsinchu, Taiwan*
Master's of Biomedical Engineering, GPA 4.02 / 4.3 — *Aug 2018 - Jul 2020*
- Thesis: Automatics QT-interval estimation from Wireless Electrocardiography (ECG)-based Healthcare Internet of Things (IoT) System

National Kaohsiung Normal University (NKNU), *Kaohsiung, Taiwan*
Bachelor of Optoelectronics & Communication Engineering, GPA 3.96 / 4 — *Sep 2014 - Jul 2018*

WORK EXPERIENCE

Research Assistant — *Sep 2020 - April 2021*
Institute of Communication Engineering, National Chiao Tung University, Hsinchu, Taiwan
- Designed the neural network model of synthesizing ECG signals (medical signals) by researching in **Auto-Encoder**, **CNN**, **RNN**, and **LSTM** network and results achieved 0.95 correlation coefficient
- Developed a **GPU cloud** on IoT system to implement AI model in real-time
- Contributed to establish databases of collecting streaming ECG data and maintaining patient's information using MongoDB and PostgreSQL separately

Teaching Assistant (Digital Signal Processing) — *Sep 2017 - Jan 2018*
Dept.of Optoelectronics and Communication Engineering, National Kaohsiung Normal University, Kaohsiung, Taiwan
- Utilized digital signal processing method to filter digital signals for optimizing the pilot scheduling

PROJECTS

Researcher, SDR to HDR - RealNetworks, Capstone Project Team — *Jan 2022 - Present*
- Research in machine learning method on inverse tone mapping in real-time

Researcher, Wireless Electrocardiography (ECG)-based Healthcare Internet of Things (IoT) System
National Chiao Tung University,Hsinchu, Taiwan — *Aug 2018 - April 2021*
- Led the designed of **a wireless healthcare IoT system** with smoothly real-time streaming data focusing on receiving ECG signals (medical signals) from devices through **Bluetooth**
- Independently designed the algorithm of automatically estimating QT-interval(vital signs) achieved **0.96** correlation correlation and practically implemented on the IoT system in real-time
- Granted National Innovation Award (Taiwan) from the Research Center for Biotechnology and Medicine Policy
- Utilized: Python, Matlab, C, MongoDB, PostgreSQL, Anaconda and Linux
- Demo Video:https://drive.google.com/file/d/1JYyFwqdieuHMo03ZfCojE2buOGOJ5O1R/view?usp=sharing

Researcher, Efficient Pilot Scheduling Using Ant Colony Optimization for Massive Multiuser Multi-Input Multi-Output (MIMO) System — *Sep 2017 - Jan 2018*
National Kaohsiung Normal University, Kaohsiung, Taiwan
- Optimized the pilot scheduling by using a Ant colony optimization algorithm
- Utilized: Matlab

TECHNICAL SKILLS

- Programming: **Python**, Matlab, C, Java, HTML
- Digital Signal Processing, Machine Learning, Medical Signals (ECG), Interne of Things(IoT)
- MongoDB, PostgreSQL
- Linux, Microsoft Windows
- Pytorch, Tensorflow