



Wenwen Zhang

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Education

BSc in Electronic Information Engineering

08/2016-07/2020

Tianjin University (TJU), China

• GPA: 3.78/4.0 | GRE:326 (V:158/170 Q:168/170 AW:4) | TOEFL IBT:102

MASc in Electrical and Computer Engineering

08/2020-CURRENT

University of British Columbia (UBC), Canada Teaching assistant (CPEN 211, ELEC 315)

Research Publication

- W. Zhang*, K. Ma, H. Zhang and H. Fu, "Design of a Compact SISL BPF With SEMCP for 5G Sub-6 GHz Bands," in *IEEE Microwave and Wireless Components Letters*, vol. 30, no. 12, pp. 1121-1124, Dec. 2020, doi: 10.1109/LMWC.2020.3030189.
- A. Tashakori*, **W. Zhang***, Z. Wang, and P. Servati, "SemiPFL: Personalized Semi-Supervised Federated Learning Framework for Embedded Intelligence," submitted to *IEEE Internet of Things Journal*.

Projects

Flexible Electronics and Energy Lab (FEEL)

Electronic and Computer Engineering Department, Research Assistant

Personalized Semi-supervised Federated Learning for Embedded Intelligence

09/2021-01/2022

Supervisor: Prof. Peyman Servati

- Federated learning method considering large proportion of no-label data with huge data heterogeneity at different device end.

Wearable Sensor System for Gait Disorder Patients

2021-CURRENT

- Developing real-time algorithms to predict gait parameters of patients with disorders (Parkinson, stroke & geriatric).

• Texavie Technologies, Inc.

R&D Intern, Hardware/Firmware and Data Processing

12/2021-03/2022

Smart Knee Sleeves Based on Flexible Sensors

2021-CURRENT

- Lower extremity estimation & movement tracking & muscle condition monitoring by data from flexible sensors (stress, temperature, ect.) integrated on knee braces.

Intelligent Glove with Embedded Wearable Sensors.

2021-CURRENT

 Hand gesture reconstruction of post-stroke patients to assess upper extremity function and help motivate recovery progress.

Human Motion Biomechanics Lab (HuMBL)

Biomedical Engineering Department, Research Assistant

Real-World Biomechanical Measurements of Impacts in Humans

12/2021-01/2022

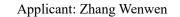
Co-Supervisor: Prof. Calvin Kuo

- Quantifying measurement errors in wearable inertial measurement unit devices caused by soft tissue movement artifacts.

Auto-calibration of Multi-sensors

01/2021-09/2021

- Automatic calibration of relative sensor location and orientation movement during slow motions.



Instructor: Prof. Lukas Chrostowski



• Microsystems and Nanotechnology (MiNa) Lab

Electronic and Computer Engineering Department

Weight Bank Addition Photonic Accelerator in Neuromorphic Networks

04/2021-12/2021

- Designing and implementing cascaded micro-ring weight bank reporting the observations of weight addition and subtraction in neuromorphic networks based on silicon on insulators (SOI).

Extended FSR Micro-Ring Modulator

09/2020-05/2021

Designing parallel and cascaded ring resonators exhibiting Vernier effect and extended free spectral range (FSR).

• Interconnection Perception Microelectronics Laboratory, Tianjin University Supervisor: Prof. Kaixue Ma Electronic and Computer Engineering Department, Research Assistant

Dual-band Microwave Filters for 5G

09/2018-04/2020

- Design a Self-Packaged dual bandpass filter with improved suppression for 5G sub-6 GHz applications based on the Substrate Integrated Suspended Line (SISL) technology.

• High Performance Computing Lab, Tianjin University

Department of Intelligent Computer Science, Research Assistant

APAC HPC-AI Competition (Singapore)

09/2018-04/2020

- Refining performance of RDMA based on TensorFlow by python.

• Machine Learning and Biomedical Development Laboratory, Tianjin University

Intelligence and Computing Department, Research Student

Feature Extraction of Brain Tumor and Classification

2017-2018

Electronic Information Engineering Department, Tianjin University

Undergraduate Student, Research Student

Wireless Calculator for Communication Composed of Sampling, Coding, Modulation, Demodulation, Detection of Acoustic Signal

Awards and Honors

UBC International Tuition Award

2020-2021

UBC Research Assistance Graduate Award

2020-2021 2018-2019

• Two National Patents for Invention (Patent No. 201910862414.8 & 201910528184.1)

2010 2017

• First Prize in Tianjin District in China Undergraduate Mathematical Contest in Modeling (5%).

2018

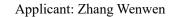
- Career Certification of HCNA Huawei
- Third National College Students Integrated Circuit Innovation and Entrepreneurship Competition (North China Division), First Prize (Top 1 of 140)
- Third National College Students Integrated Circuit Innovation and Entrepreneurship Competition (National Finals), Second Prize
- "Mathematical Contest in Modeling Certificate of Achievement (MCM)", Honorable Mention (Second award)

Best Student Awards in Tianjin University

2017-2018

Workshop & Seminar

- 2021 SIEPIC Active Silicon Photonics
- The SmarT Innovations for Technology Connected Health (STITCH)
- QSciTech-QuantumBC Virtual Workshop: Gate-based Quantum Computing Using IBM-Q
- 2020 SIEPIC Passive Silicon Photonics
- 2019/2020 International Workshop on Microwave and Microsystems





Community Service

• Optica student member 2021-CURRENT

IEEE student member
 IEEE WIE member (Region 10#)
 2019-CURRENT
 2019-CURRENT

• IEEE MWCL, TCAS-II, Journal of IoT (reviewer)

Skills

• Python, MATLAB, C, C++, HFSS, Lumerical, Ansys.