XIANGCHI YUAN

+17812907437 | xiangchiyuan@brandeis.edu | https://jiqianwanbaichi.github.io/

EDUCATIONS

Brandeis University Waltham, MA, U.S.
M.S. in Computer Science 08/2022-05/2024
• Cumulative GPA: 3.67/4.0

University of Electronic Science & Technology of China (UESTC) Chengdu, Sichuan, China
B.Eng. in Electronic and Information Engineering 09/2018-06/2022
• Cumulative GPA: 3.55/4.0 Major GPA: 3.8/4.0

RESEARCH EXPERIENCE

DRAGON: Towards Scalable and Anti-degraded Graph Robust Learning 09/2022-2/2023
RA | advised by Prof. Chuxu Zhang, Brandeis University Waltham, MA, U.S.
• Revealed the connection between differential privacy and GNN robustness, and the idea of differential privacy is applied to GNN to significantly improve the robustness of GNN against adversarial examples.
• Introduced the mixture-of-experts model to GNN layer to select the better DP expert among the experts trained with different DP parameters to achieve better accuracy in the inference stage.
• Proposed Denoise Masked Graph Auto-encoder to remove malicious edges of the attacked graph.
• Submitted to SIGKDD 23' as the 1st author.

An End-to-End 12-Leading Electrocardiogram Diagnosis System Based on Deformable Convolutional Neural Network With Good Antinoise Ability 05/2020-04/2021
RA | advised by Prof. Guotai Wang, UESTC Chengdu, Sichuan, China
• Preprocessed Data, completed assigned experiments and network structure test
• Published (co-author) *IEEE Transactions on Instrumentation and Measurement*

Application of Tri-net in Electrocardiogram (ECG) Diagnosis 01/2021-05/2021
RA | advised by Prof. Guotai Wang, UESTC Chengdu, Sichuan, China
• Classified different ECG signals for diagnosis with employing Tri-net combined Tri-training with deep model

A Model for Evaluating Information Fusion 12/2020-05/2021
RA | advised by Prof. Yong Deng, UESTC Chengdu, Sichuan, China
• Combined evidence distance and Deng Entropy to evaluate the information fusion methods.
• Analyzed the evaluation value output by the measurement of different information sources

WORKING EXPERIENCE

VeriSilicon Microelectronics, GPU Arch Group 04/2022 – 07/2022
Software Development Engineer Intern Chengdu, Sichuan, China
• Built software model(C Model) of GPU hardware architecture to guide hardware design. Implemented 3 sub-modules, which are included in GPU display module and the IP is authorized to Google Pixel.
• Implemented High Dynamic Range (HDR) screen display through an adaptive curve fitting algorithm, which suited hardware features and kept high precision. The precision reached less than 0.1% error rate for 48 different RGB curves and I/O numbers of bits.
• Built gamut color mapping through matrix computing. Compared the precision of standard results (float computing) and hardware-suited results (fixed-point computing) for error control.
• Designed an internal test tool for anomaly detection of hardware configurations.
• Involved in applying Bezier Curve to trace objects. Reported content and synchronized to the U.S. team.

PUBLICATIONS

L. Qin, Y. Xie, X. Liu, **X. Yuan** and H. Wang, "An End-to-End 12-Leading Electrocardiogram Diagnosis System Based on Deformable Convolutional Neural Network With Good Antinoise Ability," IEEE *Transactions on Instrumentation and Measurement*

SERVICES

The Web Conference (WWW) 2023, Reviewer 11/2022

HONORS

UESTC University-wide Outstanding Student Scholarship 12/2020 & 12/2021