

Qian Lou

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Education

Indiana University Bloomington

PH.D. CANDIDATE OF COMPUTER ENGINEERING

- Working as a Research Assistant in the field of Security, Deep Learning and Computer Architecture

Bloomington, IN

Aug. 2017 - Exp. June 2021

Shandong University

B.S. IN COMPUTER SCIENCE AND ENGINEERING

- Overall GPA : 91.76/100; Rank: 4/300;

Jinan, China

Mar. 2013 - Aug. 2017

Publications

[C10] **Qian Lou**, Bo Feng, Geoffrey C. Fox, and Lei Jiang "Glyph: Fast and Accurately Training Deep Neural Networks on Encrypted Data", *Arxiv* 2019

[C9] **Qian Lou**, and Lei Jiang "MENDEL: Algorithm/Hardware Co-design for Accelerating Nanopore Genome Base-calling", *Under review*

[C8] **Qian Lou**, Feng Guo, Kim Minje, Lantao Liu and Lei Jiang "AutoQ: Automated Kernel-Wise Network Quantization", *International Conference on Learning Representations (ICLR 2020)*

[C7] Farzaneh Zokaee, **Qian Lou**, Nathan Youngblood, Weichen Liu, Yiyuan Xie and Lei Jiang "LightBulb: A Photonic-Nonvolatile-Memory-based Accelerator for Binarized Convolutional Neural Networks", *IEEE/ACM Design, Automation & Test in Europe Conference & Exhibition (DATE 2020)*

[C6] **Qian Lou**, Wenyang Liu, Weichen Liu and Lei Jiang "MindReading: An Ultra Low-Power Nanophotonic Accelerator for EEG-based Intention Recognition", *IEEE/ACM Asia and South Pacific Design Automation Conference (ASP-DAC 2020)*.

[C5] **Qian Lou**, Lei Jiang "SHE:A fast and accurate deep neural networks for encrypted data", *Thirty-third Conference on Neural Information Processing Systems(NeurlIPS 2019)*.

[C4] **Qian Lou**, Lei Jiang "Towards a fast and accurate deep neural networks for encrypted data", *Thirty-sixth International Conference on Machine Learning (ICML 2019 workshop on privacy and security)*.

[C3] Weichen Liu, Wenyang Liu, Yichen Ye, **Qian Lou**, Yiyuan Xie and Lei Jiang "Holylight:A Nanophotonic Accelerator for Deep Learning in Data Centers", *IEEE/ACM Design, Automation & Test in Europe Conference & Exhibition (DATE 2019)*.

[C2] **Qian Lou**, Wujie Wen, and Lei Jiang "3DICT: A Reliable and QoS Capable Mobile Process-In-Memory Architecture for Lookup-based CNNs in 3D XPoint ReRAMs", *IEEE/ACM International Conference On Computer Aided Design (ICCAD 2018)*

[C1] **Qian Lou**, Mengying Zhao, Lei Ju, Chun Jason Xue, Jingtong Hu, Zhiping Jia "Runtime and reconfiguration dual-aware placement for SRAM-NVM hybrid FPGAs.", *IEEE Non-Volatile Memory Systems and Applications Symposium (NVMSA 2017)*

[J1] **Qian Lou**, and Lei Jiang "BRAWL: A Spintronics-Based Portable Basecalling-in-Memory Architecture for Nanopore Genome Sequencing", *IEEE Computer Architecture Letters (CAL 2018)*

Committee Services

2020 **ICML 2020 Reviewer**, Thirty-seventh International Conference on Machine Learning (ICML 2020)

Australia

2019 **JETC Reviewer**, ACM Journal on Emerging Technologies in Computing Systems (JETC 2019)

United States

2018 **ASPDAC Sub-Reviewer**, IEEE 23th Asia and South Pacific Design Automation Conference (ASPDAC 2018)

United States

Honors & Awards

2019 **Travel Award**, Thirty-third Conference on Neural Information Processing Systems (NeurIPS 2019)

Vancouver, Canada

2018 **Best paper nominee**, 2018 International Conference On Computer Aided Design

San Diego, U.S.A

2015 **Honorable award**, The Mathematical Contest in Modeling

U.S.A

Presentation

36th International Conference on Machine Learning (ICML 2019 workshop on security and privacy)

Long Beach, United States

PRESENTER FOR OUR PAPER: SHE

June. 2019

- Introduced our fast and accurate deep neural networks on encrypted data

37th International Conference On Computer Aided Design (ICCAD 2018)

San Diego, United States

PRESENTER FOR OUR PAPER: 3DICT

Nov. 2018

- Introduced 3DICT accelerating lookup-based convolutional neural networks using the emerging memory technology

ACM/IEEE International Symposium on Low Power Electronics and Design (ISLPED 2017)

Taipei, Taiwan

PRESENTER FOR A PAPER: XNOR-POP

July. 2017

- Introduced XNOR-POP accelerating binarized neural networks using the emerging memory technology

Extracurricular Activity

Student Union in Shandong University

Jinan, China

CORE MEMBER & PRESIDENT AT 2014

Jun. 2013 - Jun.2014

- Environment Evaluation Survey of Jinan city.
- Volunteer