

Neiwen Ling

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Contact Address: Ho Sin Hang Engineering Building, The Chinese University of Hong Kong, Shatin, N.T.



EDUCATION

- The Chinese University of Hong Kong 08/2018-07/2022
Major: Information Engineering (Ph.D., full-time, supervised by Guoliang Xing)
- Northwestern Polytechnical University 09/2014-07/2018
Major: Electronics and Information Engineering (four-year, full-time, Bachelor's Degree)

RESEARCH INTERESTS

Internet of Things, Edge AI, Edge Computing, Real-time Deep Learning, Real-time Scheduling, On-device Deep Learning

RESEARCH EXPERIENCE

- Shenzhen Institute of Artificial Intelligence and Robotics for Society 11/2019-01/2020
Visiting Ph.D. student
- The Department of Information Engineering, The Chinese University of Hong Kong 08/2022-Present
Postdoctoral Fellow

PUBLICATIONS

- N. Ling, X. Huang, Z. Zhao, N. Guan, Z. Yan and G. Xing, "BlastNet: Exploiting Duo-Blocks for Cross-Processor Real-Time DNN Inference," The 20th Conference on Embedded Networked Sensor Systems, ACM **SenSys** 2022 , 52/209=24.88%, **Best Paper Finalist**
- N. Ling*, Y. He*, N. Guan, H. Fu and G. Xing, "Dataset: An Indoor Smart Traffic Dataset and Data Collection System," The 5th International SenSys/BuildSys Workshop on Data, ACM **DATA** 2022
- Z. Zhao, N. Ling, N. Guan and G. Xing, "Poster Abstract: Aaron: Compile-time Kernel Adaptation for Multi-DNN Inference Acceleration on Edge GPU," The 20th Conference on Embedded Networked Sensor Systems, ACM **SenSys** 2022, **Best Poster Award**
- N. Ling, K. Wang, Y. He, G. Xing, and X. Daqi, "RT-mDL: Supporting real-time mixed deep learning tasks on edge platforms," The 19th Conference on Embedded Networked Sensor Systems, ACM **SenSys** 2021, 25/139=17.98%
- Z. Zhao, K. Wang, N. Ling, and G. Xing, "Edgeml: An automl framework for real-time deep learning on the edge," in Proceedings of the International Conference on Internet-of-Things Design and Implementation, ACM/IEEE **IoTDI** 2021, 19/74=25.7%
- Z. Zhao, Z. Jiang, N. Ling, X. Shuai, and G. Xing, "Demo Abstract: Ecrt: an edge computing system for real-time image-based object tracking," The 16th ACM Conference on Embedded Networked Sensor Systems, ACM **SenSys** 2018
- W. Xie, T. Hu, N. Ling, G. Xing, S. Liu and N. Guan, "Timely Fusion of Surround Radar/Lidar for Object Detection in Autonomous Driving Systems," 2023 Design, Automation & Test in Europe Conference & Exhibition, IEEE **DATE** 2023

PROFESSIONAL SKILLS

- Programming Language: Python, C/C++ Language, Verilog HDL, Assembly Language
- Development of NVIDIA Jetson TX2, NVIDIA AGX Xavier, FPGA, Arduino, 51 SCM, STM32F1, STM32F4
- Programming Software: MATLAB, CodeBlocks, Visual Studio, Quartus II, Arduino IDE, Keil

SCHOLARSHIP & AWARDS

- Best Paper Finalist, SenSys 2022 11/2022
- Best Poster Award, SenSys 2022 11/2022
- N2Women Young Researcher Fellowship 11/2021
- Postgraduate Scholarship 08/2018-07/2022
- Undergraduate Excellent Graduation Project (5/235) 06/2018
- Second-class in Zhongya Huanbao Scholarship 09/2017
- First-class scholarship of Northwestern Polytechnical University 09/2017&2016
- First-class scholarship of School of Marine Science and Technology, NWPU 09/2015

COMPETITIONS

- The 6th National Marine Vehicle Design and Manufacture 08/2017
National 1st prize, team leader, the sea-air unmanned aerial vehicle with two mechanisms of navigating
- National Undergraduate Electronics Design Contest 08/2017
Provincial 3rd prize, adaptive filtering
- “MathorCup” Mathematical Modeling Contest 05/2017
National 2nd prize, Dynamic Prediction and Control Analysis of Ironmaking Based on Neural Network
- Interdisciplinary Contest in Modeling 01/2017
International 2nd prize, Analysis of the Airport’s Security Check Mechanism Based on Queuing Theory
- Honorable Mentioned of BLCUMUN Conference 03/2016
- “NWPU Publisher Cup” NWPU Mathematical Modeling Contest
First prize, Analysis of Eight Queens in Different Dimensions Based on Backtracking Algorithm 05/2016
Second prize, Ebola Virus Transmission Problem 05/2015
- Second place in 5th Northwestern Polytechnical University Elite Debate Race 05/2015
- Position Paper award in Northwest Model United Nations Conference 05/2015

PROFESSIONAL SERVICES

- Organizer
N2Women Meeting in SenSys 2021
- Invited reviewer
IEEE Transactions on Mobile Computing (TMC)

TEACHING EXPERIENCE

- Teaching Assistant
ENGG1100: Introduction to Engineering Design, 2018 Fall, CUHK
IERG4230: Introduction to Internet of Things, 2019 Spring, CUHK
ENGG1110: Problem Solving by Programming, 2019/2020/2021 Fall, CUHK
IERG2602: Engineering Practicum, 2020/2021 Spring, CUHK