

# Andre Xian Ming Chang

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## WORK EXPERIENCE

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**Principal Machine Learning Engineer**, Micron WA 08/2022 - present

- Lead Machine Learning software team to deliver software stack to support Micron Deep Learning Accelerator (MDLA) to achieve model coverage and performance
- Develop customer-centered ML solutions involving reinforcement learning and computer vision

**Co-Founder and Lead Compiler Engineer**, FWDNXT IN 09/2017 - 05/2019

- Implemented tools to run DNN on custom hardware accelerator
- Implementing compiler optimizations for custom DNN accelerators

**Research Assistant**, Purdue University IN 09/2014 - 08/2017

- Wrote library to accelerate deep learning on mobile phones using OpenGL
- Designed a low power hardware accelerator for recurrent neural networks using FPGA

## EDUCATION

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09/2019 PhD Electrical and Computer Engineering at **Purdue** (GPA: 3.88/4.0)

05/2016 Master of Science Electrical and Computer Engineering at **Purdue** (GPA: 3.8/4.0)

07/2014 Bachelor's Degree Electrical and Computer Engineering at **UTFPR**

## PUBLICATIONS

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Ming Chang, Andre Xian (2016). "Hardware Architectures For Long Short Term Memory". In: *Purdue*.

Chang, Andre Xian Ming and Eugenio Culurciello (2017). "Hardware accelerators for recurrent neural networks on FPGA". In: *2017 IEEE International symposium on circuits and systems (ISCAS)*. IEEE, pp. 1-4.

Gokhale, Vinayak et al. (2017). "Snowflake: An efficient hardware accelerator for convolutional neural networks". In: *2017 IEEE International Symposium on Circuits and Systems (ISCAS)*. IEEE, pp. 1-4.

Chang, Andre Xian Ming, Aliasger Zaidy, et al. (2020). "Deep neural networks compiler for a trace-based accelerator". In: *Journal of Systems Architecture* 102, p. 101659.

Chang, Andre Xian Ming, Parth Khopkar, et al. (2022). "Reinforcement Learning Approach for Mapping Applications to Dataflow-Based Coarse-Grained Reconfigurable Array". In: *arXiv preprint arXiv:2205.13675*.

## SKILLS

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Coding C, C++, Python, Verilog, Pytorch, React, JScript, Flutter, ONNX, Torchdynamo, Solidity  
Languages English Fluent and Portuguese Fluent