HALO 2019 CALL FOR POSTERS

Workshop on Hardware and Algorithms for Learning On-a-chip

Collocated with IEEE/ACM ICCAD
Thursday, November 7, 2019
The Westin Westminster, Westminster, CO, U.S.A.

https://bonanyan.github.io/halo2019/

General Information

Machine learning algorithms have made significant progress, achieving the accuracy close to, or even better than human-level perception in various tasks. Yet hardware implementation of the massively parallel and/or deep learning algorithms is still too expensive in both computation and power consumption. There is a timely need to map the latest learning algorithms to application-specific hardware (e.g. FPGA, ASIC, etc.), in order to achieve orders of magnitude improvement in performance, energy efficiency and compactness. Recent advances in computational neurosciences and nanoelectronic technology, such as resistive memory devices, will further help shed light on future hardware-software co-design platforms for learning on-a-chip.

The workshop organizers strongly encourage the submission of early results in the related topics. The submissions will be evaluated by the Technical Program Committee. The author(s) of the accepted submissions are expected to present the results in the format of posters at the workshop.

Key Topics

- Synaptic plasticity and neuron motifs of learning dynamics
- Computation models of cortical activities
- Sparse learning, feature extraction and personalization
- Deep learning with high speed and high power efficiency
- Hardware acceleration for machine learning and computer vision
- Hardware emulation of brain
- Nanoelectronic devices and architectures for neuro-computing
- Applications of learning on a smart mobile platform

Abstract Format

One page maximum in US Letter or A4 format. Once accepted, the authors are required to give a short oral introduction as well as poster presentation.

Timeline

Submission Deadline: October 25, 2019
Notification of Acceptance: October 28, 2019
Workshop Date: November 7, 2019

Submission

Please send the abstract in PDF format to yiran.chen@duke.edu, with subject "HALO 2019 poster submission".

Contact

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Organizing Committee

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