HOT CHIPS 29 - 2017
A Symposium on High-Performance Chips
Flint Center for the Performing Arts, Cupertino, CA
August 20-22, 2017

Tuesday, 8/22

- 8:30a-10:30a **FPGA**
  - Xilinx RFSoC - Monolithic Integration of RF Data Converters with All Programmable SoC in 16nm FinFET for Digital-RF Communications; Brendan Farley; Xilinx
  - Stratix 10: Intel's 14nm Heterogeneous FPGA System-in-Package (SiP) Platform; Sergey Shumarayev; Altera/Intel
  - Xilinx 16nm Datacenter Device Family with In-Package HBM and CCIX Interconnect; Gaurav Singh and Sagheer Ahmad; Xilinx
  - FPGA Accelerated Computing Using AWS F1 Instances; David Pellerin; Amazon
- 10:30-11:00 **Break**
- 11:00-12:00 **Neural Net 1**
  - A Coarse Grain Reconfigurable Array for Training Deep Neural Networks; Chris Nicol; Wave Computing
  - Accelerating Persistent Neural Networks at Datacenter Scale; Eric Chung and Jeremy Fowers; Microsoft
- 12:00-1:00 **Keynote:** Recent Advances in Artificial Intelligence via Machine Learning and the Implications for Computer System Design; Jeff Dean; Google
- 1:00-2:00 **Lunch**
- 2:00-3:30 **Neural Net 2**
  - DNN ENGINE: A 16nm Sub-uJ Deep Neural Network Inference Accelerator for the Embedded Masses; Paul Whatmough; Harvard University / ARM Research
  - DNPU: An Energy-Efficient Deep Neural Network Processor with On-Chip Stereo Matching; Dongjoo Shin and Hoi-Jun Yoo; KAIST
  - Evaluation of the Tensor Processing Unit: A Deep Neural Network Accelerator for the Datacenter; Cliff Young; Google
- 3:30-4:30 **Architecture**
  - A 400Gbps multi-core network processor; James Markevitch and Ratan Ramchandani; Cisco
  - ARM DynamIQ a systemic approach to cluster based multi-processing; Peter Greenhalgh; ARM
- 4::30-5:00 **Break**
- 5:00-7:00 **Server**
  - The Next Generation IBM z Systems processor; Christian Jacobi and Anthony Saporito; IBM
  - The Next Generation AMD Enterprise Server Product Architecture; Kevin Lepak; AMD
  - The New Intel® Xeon® Processor Scalable family (formerly Skylake-SP); Akhilesh Kumar; Intel
  - Qualcomm Centriq 2400 Processor; Thomas Speier and Barry Wolford; Qualcomm
- 7:00 **Closing Remarks**