

# MEGHAN COWAN

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## EDUCATION:

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### University of Washington – Seattle, WA

Sept. 2016 - present

- Ph.D. Computer Science
- Advisor: Luis Ceze
- GPA: 3.88/4.0

### University of Washington – Seattle, WA

Sept. 2016 – June 2018

- M.S. Computer Science
- GPA: 3.88/4.0

### University of Washington – Seattle, WA

Sept. 2011 – June 2015

- B.S *magna cum laude*, Computer Engineering,
- GPA: 3.91/4.0

## WORK HISTORY:

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### Microsoft Research, Intern – Seattle, WA

June 2019 – Sept. 2019

- Mentor: Matthai Philipose
- Trained and implemented ultra quantized neural networks.

### Microsoft Research, Intern – Seattle, WA

June 2018 – Sept. 2018

- Mentor: Luke Marshall
- Designed and implemented a SAT solver for FPGAs.

### EMC Isilon, Software Test Intern – Seattle, WA

June 2015 – Aug. 2015

- Certification Team
- Developed automated tests to verify published limits and discover hard limits of parameters in Isilon's OneFS operating system.

### Hewlett Packard, Firmware Intern – Vancouver, WA

June 2013 – Sept. 2014

- Developed a graphical tool written in C++ used to debug printer firmware using Qt IDE.
- Added support to parse commands sent to printers and decode responses.
- Added support for live time graphing to display data for performance and debugging.

### Center for Learning and Undergraduate Education – University of Washington

Sept. 2012 – June 2013

- Tutored students one on one, focusing on pre-calculus through linear algebra and differential equations.
- Lead large group midterm and final review sessions.

## CONFERENCE PUBLICATIONS:

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M. Cowan, T. Moreau, T. Chen, J. Bornholt, L. Ceze. *Automatic Generation of High-Performance Quantized Machine Learning Kernels*. CGO 2020.

T. Chen, T. Moreau, Z. Jiang, L. Zheng, E. Yan, H. Shen, **M. Cowan**, L. Wang, Y. Hu, L. Ceze, C. Guestrin, A. Krishnamurthy. *TVM: An Automated End-to-End Optimizing Compiler for Deep Learning*. OSDI 2018.

A. Mazumdar, T. Moreau, S. Kim, **M. Cowan**, A. Alaghi, L. Ceze, M. Oskin, V. Sathe. *Exploring Computation-Communication Tradeoffs in Camera Systems*. IISWC 2017.

## WORKSHOP PUBLICATIONS:

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**M. Cowan**, T. Moreau, T. Chen, L. Ceze. *Towards Automated Generation of Low Precision Deep Learning Operators*. In MLPCD2 co-located with NeurIPS 2018.

## TEACHING

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- UW CSE 352 – Hardware Design and Implementation, UW Teaching Assistant Sp '14
- UW CSE 451 – Introduction to Operating Systems, UW Teaching Assistant Au '14
- UW CSE 401 – Introduction to compiler Construction, UW Teaching Assistant Wi '15
- UW CSE 333 – Systems Programming, UW Teaching Assistant Sp '15, Au '17, Wi '18

## SCHOLARSHIPS AND AWARDS:

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- Microsoft Endowed Scholarship 2013
- Annual Dean's List 2012 - 2015