

Alex Wong

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EDUCATION

Cornell University, College of Engineering

Master of Engineering in Electrical and Computer Engineering
Bachelor of Science in Computer Science
Bachelor of Science in Electrical and Computer Engineering

Ithaca, NY
Completed May 2019
Completed May 2018
Completed May 2018

ABOUT ME

Select Courses: Compilers, Computer Architecture, Programming Languages, Operating Systems, ASIC Design, Analysis of Algorithms, Machine Learning, AI, Functional Programming, Discrete Structures, OO Programming

Software: Java, C, C++, C#, OCaml, Rust, Python, JavaScript, PHP, OpenCV, TensorFlow, AWS, LLVM, Bash

Hardware: Verilog, VHDL, Rapid Prototyping, RTL/ASIC/FPGA Design, Embedded Systems, IoT, Assembly

EXPERIENCE

Amazon

Software Engineer

Palo Alto, CA
September 2019 – Present

- Upcoming role working on a deep learning compiler stack and accompanying service

INTERNSHIPS

Amazon

Software Engineering Intern

Seattle, WA
September 2018 – January 2019

- Full-stack software development for Amazon Connect building a new service using API Gateway, AWS Lambda
- Launched new public APIs to expose resource management to customers

Marvell Semiconductor

Hardware Engineering Intern

Boston, MA
June 2018 – August 2018

- Designed power optimization feature for PCIe MAC utilizing clock scaling and course-grain clock gating

Cavium

Hardware Engineering Intern

Boston, MA
August 2017 – January 2018

- Designed new hardware accelerator for authentication and encryption/decryption on the ThunderX2 SOC
- Ran through PnR flow and analyzed results to optimize performance and power consumption through clock-gating

Intel Corporation

Software Engineering Intern

Santa Clara, CA
May 2017 – August 2017

- Developed high-performance computer vision applications for benchmarking various products in the Perceptual Computing Group

NASA Langley Research Center

Software Engineering Intern

Hampton, VA
June 2016 – August 2016

- Built the pipeline powering data logging along with tools to image and validate received data for a new drone

RESEARCH PROJECTS

Continuous Reconfiguration of Polymorphic Hardware

January 2019 – August 2019

- Working with Adrian Sampson and researchers from Cornell and UW on a new reconfigurable architecture to accelerate machine learning and graph applications
- Designing a high-level IR to express hardware configurations and compiler to target different hardware designs

P4 Programming Language

January 2019 – May 2019

- Building a new backend for P4C reference compiler to target the new PSA architecture. Also building software switch to simulate new architecture with Nate Foster and the P4 Language Consortium