

# Marcus Chow

PH.D. CANDIDATE · (THEY / THEM)

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## Education

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### University of California, Riverside

PH.D. CANDIDATE IN COMPUTER SCIENCE

- Advisor: Dr. Daniel Wong

Riverside

Current

### University of California, Riverside

M.S. IN COMPUTER SCIENCE

- Thesis: *Characterizing Dynamic Frequency and Thread Blocking Scaling in GPUs: Challenges and Opportunities*

Riverside

2018

### University of California, Merced

B.S. IN COMPUTER SCIENCE AND ENGINEERING

- **Outstanding Student Award from the School of Engineering** 2016
- **Dean's List** 2015

Merced

2016

## Teaching

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### Mentor for Undergraduate Research

MENTOR A NUMBER OF UNDERGRADUTES FOR THEIR SENIOR DESIGN PROJECTS AND RESEARCH COURSES.

UCR

Current

### Associate In\_

EE/CS 147: INTRODUCTION GPU PROGRAMMING AND ARCHITECTURE

CS 161L: LABORATORY IN DESIGN AND ARCHITECTURE OF COMPUTER SYSTEMS

UCR

Spring '20

Spring '18

### Teaching Assistant

CS 161: INTRODUCTION TO COMPUTER ARCHITECTURE

CS 217: GPU ARCHITECTURE AND PARALLEL PROGRAMMING

UCR

Winter-Spring '19

Fall '17

## Work

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### University of Washington

SUMMER RESEARCH INTERN

- Energy Modeling of Hammerblade Manycore Architecture

Seattle, WA

Summer 2020

### AMD Research

RESEARCH INTERN

- GPU Task Scheduling using AMD's Directed Acyclic Graph Execution Engine (DAGEE). Implemented Strassen Winograd Algorithm on AMD GPUs.

Bellevue, WA

Fall 2019

### AMD Research

RESEARCH INTERN

- GPU Micro-Architecture research using gem5 integrated APU simulator

Bellevue, WA

Fall 2018

## Presentations

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### Women in Computing - Grad Webinar

A HISTORY OF WOMEN'S ROLE IN COMPUTING ARCHITECTURES

- This webinar will cover a broad introduction into Computer Architecture and a historical look into the first computers. .
- We will also look into the women who mastered creating, developing and sustaining the field.

UCR

Nov. 2020

## Publications

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- [1] A. Duțu, M. D. Sinclair, B. M. Beckmann, D. A. Wood, and M. Chow, "Independent forward progress of work-groups," in *2020 ACM/IEEE 47th Annual International Symposium on Computer Architecture (ISCA)*, IEEE, 2020, pp. 1022–1035.

- [2] Z. Sun, T. Kim, M. Chow, S. Peng, H. Zhou, H. Kim, D. Wong, and S. X.-D. Tan, “Long-term reliability management for multitasking gpgpus,” in *2019 16th International Conference on Synthesis, Modeling, Analysis and Simulation Methods and Applications to Circuit Design (SMACD)*, IEEE, 2019, pp. 213–216.
- [3] M. N. Chow, “Characterizing dynamic frequency and thread blocking scaling in gpus: Challenges and opportunities,” M.S. thesis, UC Riverside, 2018.