

Olivia Weng

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Education

University of California, San Diego

PhD (*In progress*), Computer Science

Advisor: Ryan Kastner

2020 - 2026 (expected)

The University of Chicago

BS, Computer Science *spec.* Computer Systems

2016 - 2020

Research Experience

University of California, San Diego

Research Assistant

Advisor: Ryan Kastner

October 2020 - Present

The University of Chicago

Research Assistant

Advisor: Andrew A. Chien

April 2019 - Jan 2020

The University of Chicago

Research Assistant

Advisor: Yanjing Li

March 2018 - Jan 2020

Employment

The University of Chicago

Computer Lab Tutor

Jan 2017 - Jun 2020

Braintree

Software Engineer Intern

Jun 2019 - Aug 2019

The University of Chicago

Research Assistant

Advisor: Yanjing Li

Jun 2018 - Sep 2018

Gridless Power Corporation

Software Intern

Jun 2017 - Aug 2017

Publications

1. **ResNet Reshaper:** In submission
Reshaping Residual Networks for Resource-Efficient Inference on FPGAs
Olivia Weng, Alireza Khodamoradi, Gabriel Marcano, Nojan Sheybani, Farinaz Koushanfar, Kristof Denolf, Ryan Kastner
2. **Turn on, Tune in, Listen up:** In submission
Maximizing Channel Capacity in Time-to-Digital Converters
Colin Drewes, Olivia Weng, Steven Harris, Winnie Wang, William Hunter, Christopher McCarty, Ryan Kastner, Dustin Richmond

3. **A Tunable Dual-Edged Time-to-Digital Converter** FCCM 2021
 Colin Drewes, Steven Harris, Winnie Wang, Richard Appen, Olivia Weng, Ryan Kastner, William Hunter, Christopher McCarty, Dustin Richmond
 In *IEEE 29th Annual International Symposium on Field-Programmable Custom Computing Machines (FCCM)*
 Virtual, May 2021
4. **Design Space Exploration for Machine Learning Architectures** ReCoDe 2021
 Michael Barrow, Olivia Weng, Ryan Kastner
 In *Workshop on Reimagining Codesign*
 hosted by *US DOE, Office of Advanced Scientific Computing Research*.
 Virtual, March 2021.
5. **Hardware-efficient Residual Networks for FPGAs** SLOHA 2021
 Olivia Weng, Alireza Khodamoradi, and Ryan Kastner.
 In *Workshop on System-level Design Methods for Deep Learning on Heterogeneous Architectures (SLOHA)*
 at *Conference on Design, Automation and Test in Europe (DATE)*.
 Grenoble, France, February 2021.
6. **Evaluating Achievable Latency and Cost: SSD Latency Predictors** AccML 2020
 Olivia Weng and Andrew A. Chien.
 In *Workshop on Accelerated Machine Learning (AccML)*
 at *High Performance Embedded Architectures and Compilers (HiPEAC)*.
 Bologna, Italy, January 2020.

Presentations

Hardware-efficient Residual Networks for FPGAs SLOHA 2021, Virtual	February 5, 2021
Evaluating Achievable Latency and Cost: SSD Latency Predictors AccML 2020, Bologna, Italy	January 20, 2020

Awards

Jacobs School of Engineering Fellowship University of California, San Diego	2020 - 2022
Kunzel Powell Fellowship University of California, San Diego	2020 - 2021
Dean's Fund for Undergraduate Research The University of Chicago	2020
Dean's List The University of Chicago	2017, 2018, 2019
Grace Hopper Conference Scholarship The University of Chicago	2018

Teaching

CSE 142L: Computer Architecture: A Software Perspective – <i>Head TA</i> · Develop software tools for course projects that allow students to visually see computer architecture concepts in action	Summer 2021, Fall 2021
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CMSC 15400: Introduction to Computer Systems – <i>Grader</i>	Spring 2020
CMSC 15200: Introduction to Computer Science II – <i>Grader</i>	Summer 2018, Winter 2019
CMSC 22200: Computer Architecture – <i>Grader</i>	Spring 2018
CMSC 16100: Honors Introduction to Computer Science I – <i>Grader</i>	Autumn 2017

Service

MyCSPHD.org , Content Creator + Panelist	Dec 2020 - Present
<ul style="list-style-type: none"> · Created an informational video on the CS Ph.D. experience based on an interview with a Ph.D. student at the University of Washington, currently available on the My CS Ph.D Youtube channel · Participated in two My CS Ph.D. information session panels, answering questions about why pursue a Ph.D in CS and what Ph.D student life is like 	
UCSD CSE DEI Book Club , Organizer + Member	Oct 2020 - Present
<ul style="list-style-type: none"> · Select books and lead discussion on pressing and timely diversity issues, focusing especially on the U.S. · Books read: <i>The Color of Law</i>, <i>Minor Feelings</i>, <i>How to be an Anti-Racist</i>, <i>Whistleblower: My Unlikely Journey to Silicon Valley</i> and <i>Speaking Out Against Injustice</i>, <i>Between the World and Me</i> 	
Jacobs Undergraduate Mentoring Program , Mentor	Oct 2020 - Jun 2021
<ul style="list-style-type: none"> · Mentored three undergraduate students, fostering connections between software engineers in industry and maintaining morale amidst a global pandemic 	
UCSD GradWIC Graduate School Application Workshop , Volunteer	Oct 2020 - Mar 2021
<ul style="list-style-type: none"> · Reviewed and gave feedback on several undergraduate students' graduate school application materials over multiple workshop sessions 	
ACM-W@UChicago Mentorship Program , Undergraduate Mentor	May 2018 - Jun 2020
<ul style="list-style-type: none"> · Guided Neha through how to start research and secure a research advisor, pointing her to various professors in the department with whom she could potentially work—she worked with Professor Shan Lu · Supported and checked in with Melanie as she went through the internship recruiting process and the CS major at UChicago, reviewing her resume and helping her select classes 	
CS Student Activities Council , Student Representative	Sep 2017 - Jun 2020
<ul style="list-style-type: none"> · Secured funding to support four computer science student organizations on campus to host events that foster collaboration and grow the undergraduate tech community at UChicago 	
Asynchronous Anonymous , Director	Jan 2017 - Jun 2020
<ul style="list-style-type: none"> · Coordinated weekly tech talks given by a diverse set of undergraduates, elevating minority speakers, to build an inclusive tech community at UChicago, engaging students with new technologies 	
Society of Women Engineers' Girls' Day in STEM , Volunteer	May 2019
<ul style="list-style-type: none"> · Created a workshop that taught basic cryptography topics, in which 50 middle and high school girls participated · Facilitated a discussion on diversity and what it means to be a woman in STEM among a group of 7 local Chicago middle school girls 	
compileHer Tech Capstone 2019 , Volunteer	Apr 2019
<ul style="list-style-type: none"> · Led a group of 12 local Chicago middle school girls through interactive workshops that introduced select computer science topics, guiding them through completing each activity 	
ACM-W@UChicago , Board Member	Jan 2017 - Jun 2018
<ul style="list-style-type: none"> · Organized study breaks and student panels in committee of five women computer science majors weekly to bring women and minority computer science community together and discuss diversity issues in the tech industry 	

Extra-curricular Activities

University Theater , Actor	Jan 2020 - Jun 2020
University Double Woodwind Quintet , French horn player	Apr 2018 - Jun 2018
University Symphony Orchestra , French horn player	Oct 2017 - Jun 2018
University Chamber Orchestra , French horn player	Oct 2016 - Jun 2017
Taiwanese-American Student Association	Oct 2016 - Jun 2020
Events chair, Family head, Advisory board	