

# Caryn Tran

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## EDUCATION

### UNIVERSITY OF CALIFORNIA, BERKELEY

Master's of Science in Electrical Engineering & Computer Science, August 2019  
(with secondary focus in education)

Bachelor's of Arts in Computer Science, December 2017

## ENGINEERING EXPERIENCE

### SOFTWARE ENGINEER

TeachFX – Redwood City, CA

*full-stack developer and machine learning engineer*

- Backend development in Django, GraphQL, Firebase
- Frontend web and mobile development in React JS
- Developing machine learning infrastructure for speaker diarization and teacher identification using Google Cloud Services and Kubernetes

OCT 2019  
TO FEB 2021

### SOFTWARE ENGINEER

Adobe I/O Team at Adobe Systems – San Francisco, CA

*tooling, OAuth 2.0, android, javascript, front-end, react JS*

Work centered around developing tooling for internal developers using Adobe APIs

- Developed Passport JS, android, and python authentication libraries under Adobe's OAuth 2.0 protocol for internal use
- Worked on front-end development for Adobe PhoneGap in React JS

NOV 2017  
TO AUG 2018

### SOFTWARE ENGINEERING INTERN

Adobe Systems – San Francisco, CA

*tooling, open-source, cordova, phonegap, node JS, software architecture*

- published to NPM; contributed fixes, tests, features.
- Earned committership to the Apache Cordova open-source project
- Architected and completed an extensive refactor of Adobe PhoneGap and Apache Cordova to decouple version dependency

MAY 2016  
TO AUG 2016

## RESEARCH EXPERIENCE

### MACHINE LEARNING FOR WIRELESS RESEARCHER

Berkeley Wireless Research Center @ University of California, Berkeley

*reinforcement/machine learning, wireless communications, pytorch, tensorflow, google cloud platform*

Research of machine learning and reinforcement learning application in the communications pipeline, particularly for equalization and modulation.

- Implemented various neural net architectures for equalization
- Wrote code base for experimentation of neural and polynomial based agents learning modulation via policy gradients in simulation.

JAN 2018  
TO SEPT 2019

## TEACHING EXPERIENCE

### MIDDLE SCHOOL COMPUTER SCIENCE TEACHER

Synapse School – Redwood City, CA

*Teaching 5th/6th and 7th/8th grade*

- Teaching the basics of block programming and Python to 5th and 6th grade students: variables, lists, loops, functions, and input.
- Teaching the basics of web to 7th and 8th grade students: HTML, CSS, JavaScript.
- Developing project-based learning curriculum.
- Leading online distance learning initiative during Covid-19 crisis.

FEB 2020  
TO JUNE 2022

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|---------------------------------------|--|-------------------------|
| TEACHING<br>EXPERIENCE<br>(CONTINUED) | HEAD GRADUATE STUDENT INSTRUCTOR<br>FOR CS188, UPPER DIVISION COURSE IN ARTIFICIAL INTELLIGENCE<br>University of California, Berkeley – Berkeley, CA   | MAY 2019<br>TO AUG 2019 |
|                                       | <i>search, game trees, markov decision processes, reinforcement learning, probabilistic graphical models, machine learning.</i><br>Prepared course materials including slides, notes, problem sets, programming assignments, and exams; taught course topics to classes of size ~30 to ~50 students, led review sessions, held 1:1 office hours; graded and developed course material.<br><i>I previously was an undergraduate student instructor for the same course in Fall 2018 and Fall 2017</i> |                         |
|                                       | INSTRUCTOR FOR CS61AS, LOWER DIVISION INTRODUCTORY COMP SCI<br>University of California, Berkeley – Berkeley, CA   | JAN 2016<br>TO MAY 2016 |
|                                       | <i>Taught in scheme/python: functional/object-oriented/logic programming, recursion, environment &amp; state, higher order fcn's, and interpreters.</i><br>Was the main instructor to teach the course. Edited/wrote the curriculum, tests, assignments.   |                         |
| OTHER                                 | GIRLS WHO CODE INSTRUCTOR (Fall 2017); BE A SCIENTIST MENTOR in (2017-2018);<br>BERKELEY STUDENT COOPERATIVE NON-PROFIT BOARD DIRECTOR (Spring 2019)   |                         |
| PUBLICATIONS                          | Anant Sahai, Joshua Sanz, Vignesh Subramanian, Caryn Tran, Kailas Vodrahalli<br>Blind interactive learning of modulation schemes: Multi-agent cooperation without co-design, IEEE Access, Special Section: Artificial Intelligence for Physical-layer Wireless, 2019 (Accepted, await publication)   |                         |