# ALEX YANG

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## EDUCATION

**University of California, Berkeley** <span style="float:right">Aug 2016 - May 2020</span>

BA in Computer Science, GPA: 3.66

Course Highlight: Operating Systems and Systems Programming, Efficient Algorithms and Intractable Problems, Probability and Random Processes, Great Ideas in Computer Architecture, Data Structures, Linear Algebra

## EXPERIENCE

**Qualcomm Ubiquitous Swarm Lab | University of California, Berkeley** <span style="float:right">Jun 2017 - Present</span>

*Undergraduate Researcher*

· Changed packet-sending scheduler in OpenWSN OS to reduce latency in wireless sensor networks following IEEE standards
· Wrote UDP app in Python and C that sends packets across a network, calculating packet latency accurately to 30.5 $\mu$s
· Created Python script to interface with AnalogDiscovery2 and onboard GPIO pins. Measures packet latency to 1 $\mu$s accuracy.

**Computer Science Mentors | University of California, Berkeley** <span style="float:right">Jan 2017 - May 2018</span>

*Senior Mentor (Spring '18), Tutor (Fall '17), Academic Intern (Spring '17)*

· Held weekly private and small group tutoring sessions to 100+ students, personalizing each session to students' questions
· Guided junior mentors in weekly meetings to provide support and help new tutors become better teachers
· Reviewed the week's material and prepared notes, guides, and solutions to better address students' needs
· Significant number of students that attended my section greatly improved their performance on tests.

**CS Bio | Menlo Park, CA** <span style="float:right">Jun 2015 - Jul 2015</span>

*Programmer*

· Programmed an Android application in Java to monitor peptide synthesis machines
· Used Eclipse EE and Android SDK to emulate the application and implement features

## LEADERSHIP

**Golden Bear Orientation | University of California, Berkeley** <span style="float:right">Aug 2017</span>

*Orientation Leader*

· Led 37 first-year students during orientation week at UC Berkeley, familiarizing them with campus culture
· Scheduled activities for a week of 15-hour-long days, managed transportation/food, introduced students to campus resources
· Facilitated icebreakers, campus/city tours, and discussions on diversity and sexual violence

**Tech Challenge Club | Belmont, CA** <span style="float:right">Sept 2012 - Apr 2016</span>

*Co-Founder, Co-President*

· Solved engineering problems by building mechanical devices and competed at the Tech Challenge Competition
· Managed 3-4 teams, consisting of 5-6 members each, and organized weekly school and out-of-school meetings
· Wrote meeting minutes, organized journals, drew design plans, analyzed test results, and made presentations

## PROJECTS

**Low Latency Research Project** <span style="float:right">Jun 2017 - Feb 2018</span>

· Published paper in IEEE Xplore showing how packet latency can be drastically reduced by increasing the number of active TX/RX slots in a Time Slotted Channel Hopping network.

**NES Emulator** <span style="float:right">Oct 2016</span>

· Designed and implemented the 6502 CPU in Python. Program executes over 150 instructions, and read/write to memory.

**Explorus** <span style="float:right">Oct 2016</span>

· Instagram-based travel application built on Python Flask and Heroku with Amadeus API and Instagram API

## SKILLS

**Technical Skills**    Java, Python, C, SQL, HTML/CSS, JavaScript, C++, Scheme