

# Emily Huynh

2520 Channing Way, Apt 588, Berkeley, CA 94720 • (714) 308-3181 • emily\_huynh@berkeley.edu • in/emily-h

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## EDUCATION

### University of California, Berkeley

Berkeley, CA

#### Bachelor of Science, Bioengineering; Minor, Electrical Engineering & Computer Science

Expected Grad: May 2020

-CS 61B: Data Structures & Algorithms

-Math 54: Linear Algebra & Differential Equations

-CS 70: Discrete Mathematics & Probability Theory

-EE 16A/B: Designing Information Systems & Devices I & II

-E 26: Three Dimensional Modeling & Design

-BioE 101: Instrumentation in Biology & Medicine (Current)

-BioE 104: Biological Transport Phenomena (Current)

-EE 105: Microelectronic Devices & Circuits (Current)

### Oxford Academy

Cypress, CA

• Cumulative GPA: 4.46 (W), 3.98 (UW)

Sept. 2012 - May 2016

• Rank: 5/185

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## PROFESSIONAL EXPERIENCE

### Junior Research Associate

January 2017—Present

#### Dascena

Hayward, CA

- Worked on team to publish manuscripts for predictive software using multidimensional analyses of physiologic inputs for early sepsis alerts
- Assisted with data collection tasks; writing/reviewing manuscripts and NIH/NSF grants; and performing literature reviews

### Intern

June 2015 - January 2016

#### Children's Hospital of Orange County, Medical Intelligence & Innovation Institute

Orange, CA

- Synthesized latest advancements in health technology related to AI and presented to board of doctors and C-suite during grand rounds
- Developed an abstract on an *in vivo* biosensor for early detection using piezoelectric nanogenerators and biomarkers
- Presented abstract at annual Peds2040 conference with over 170 hospitals in attendance

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## PROJECTS

### SIXT33N Robot Voice-Controlled Car

November 2017

- Built front-end microphone circuits and motor circuits for car and empirically tested it for optimal velocity and angled turns
- Trained voice classifier using principle component analysis and k-means clustering to have car recognize and execute external commands
- Implemented closed-loop controller in Launchpad to internally address model mismatch and have car drive route as expected

### Database Management System

February 2017

- Developed a small-scale relational database management system similar to SQL with a domain specific language for user interaction
- Utilized Java to design implementation, using packages and methods to parse user input and query databases
- Used test-driven development using JUnit to refactor code to be more efficient

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## ORGANIZATIONS

### Vice Regent, Scribe, Fundraising Chair

September 2016 - Present

#### Theta Tau

University of California, Berkeley

- Sketched and built custom-made table installed with LED lights to be controlled by Arduino via front-end buttons
- Pitched and executed public philanthropy event to donate over \$800 to Treatment Advocacy Center to raise mental health awareness
- Oversaw smooth execution of professional and social fraternity events, and membership of over 60 students

### Web Development Committee

September 2016 - Present

#### Regents' and Chancellor's Scholar Assn.

University of California, Berkeley

- Worked with small team to maintain website using HTML/CSS and Bootstrap
- Worked on front-end and back-end development to maximize usage of website as central information system database for organization

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## SKILLS

### Languages

Proficient: Python • Java • HTML/CSS

Familiar: LaTeX • MATLAB

### Tools

Git • Bootstrap • NumPy

Excel • SolidWorks • Cadence

### Lab Skills

Circuit Analysis • Breadboarding

Soldering • Basic EE instrumentation

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## AWARDS AND HONORS

Regents' and Chancellor's Scholar

Thermo-Fisher Scientific Scholarship

Change-A-Life Scholarship

CA Interstate Federation-Southern Section Div. 4 Long Jump Champion