

# EMILY YEH

## ENGINEERING: COMPUTING

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I thrive in fast-paced environments, have enthusiasm for learning, and strive to be a strong and valuable worker. I hope to intern at your company this summer, and I'd love to get any kind of experience you have available; I'm majoring in engineering with a concentration in computing, but I'm interested in all disciplines.

This past summer, I was a research assistant in Olin's biology laboratory. In this position, I studied microbial diversity and collective motion through laboratory experiments, gave presentations at a national conference in Boston, and prepared documents for publication. I used **Python** to mine data from online databases. I also taught myself some **JavaScript** and **C**.

I have more practice with **Java** than any other language, but I have also been using **C**, **Arduino**, **Python**, **MATLAB**, and **Racket** (formerly known as PLT Scheme) in my classes and my projects this semester.

## SKILLS

### PROGRAMMING

Python  
C  
Java  
HTML/CSS  
MATLAB  
Racket  
Arduino

### PRACTICAL SKILLS

GIMP  
Adobe InDesign  
Adobe Photoshop

## EDUCATION

### Franklin W. Olin College of Engineering

BS Candidate in Engineering: Computing, 2019  
4.00 GPA

Current courses: Foundations of Computer Science (language: Racket), Data Structures (language: Java), Principles of Engineering (language: Arduino), Linearity II

## WORK EXPERIENCE

### Olin Biology Research Laboratory

Biology Research Assistant

May 2016 to Aug 2016

Conducted experiments, performed research, and presented findings at conferences in New York and Boston.

## PROJECTS

### Snake

Nov 2016 to Current

Working with a team to build a version of the popular Snake game using **Java**. Various and numerous data structures will be used.

### Harry Potter and the Biwizard Tournament

Mar 2016 to May 2016

Used **Python** and **OpenCV** to create a game that uses a webcam feed and color recognition to allow a user to wave a "wand" (in real life) to cast spells (in the game), which are used to defeat enemies from the Harry Potter series.

### Text Mining: Shakespearean Doge Poetry

Feb 2016 to Apr 2016

Generated a poem using words from Shakespeare's texts in the style of the doge meme; added the additional option of "feeding" the doge in order to generate happier poems. Written in **Python**.

### Computational Art

Jan 2016 to Feb 2016

Created art using computation as an artistic medium; in the **Python** language.

### Mechanical Systems: Spinning Tops

Nov 2015 to Dec 2015

Modeled the motion of a spinning top; in the **MATLAB** language.

### Facial Recognition: Eigenfaces and Bread Cats

Apr 2016 to May 2016

Investigated the applications of eigenfaces in facial recognition by reconstructing cat faces using eigenfaces generated from collections of the faces of bread cats (cats with slices of bread around their necks).

### Halobacillus Research Paper

May 2016 to Aug 2016

Conducted extensive study on halophiles and two particular strains, *H. halophilus unk1* and *H. halophilus unk2*, that were isolated in the Olin laboratory from rock salt.

### Engineering & Entrepreneurship: Traktor Farm-Sharing

Jan 2016 to May 2016

Designed a program that would allow farmers to deliver groceries to customers more easily as part of an engineering-entrepreneurship class.

## AWARDS

### Olin Academic Merit Scholarship

May 2015

Representative of Olin's confidence in a student's ability to succeed in its unique academic environment.

## ACTIVITIES

### Society of Women Engineers (SWE) · Member

Sep 2015 to Current

A club of mostly (but not exclusively) women, which is one of hundreds across the country, each with a mission to help women engineers network and build career ties with one another.

### Engineering Discovery · Member

Sep 2015 to Current

A club dedicated to fostering passion and excitement for engineering and science in K-12 students of all backgrounds.

### Olin Conductorless Orchestra (OCO) · Pianist

Sep 2015 to Current

The only conductorless orchestra in the country composed entirely of engineers.

### Piano Performance · Student Soloist

Sep 2016 to Current

A semester-long study of piano, culminating in performing concerts at various venues.

## VOLUNTEER WORK

### Daily Table Volunteers · Student Leader

Sep 2015 to Current

Dorchester, MA

Coordinating a group of students that volunteers at a nonprofit grocery store that serves underprivileged people.