

# Monica Song

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## Education

### **HARVARD UNIVERSITY**

B.A. in Computer Science  
August 2015 - June 2019  
Cambridge, MA  
Cum. GPA: 3.72

### **LA CAÑADA HIGH SCHOOL**

September 2011 - June 2015  
La Cañada Flintridge, CA  
GPA: 4.7 W, 4.0 UW

## Skills

### **PROGRAMMING**

Python (sklearn, statsmodels, pandas, numpy) • OCaml • C • Javascript • Matlab

### **Tools and Frameworks:**

Ubuntu • Flask • Amazon Web Services • Docker • Psychopy

### **Web Templating:**

HTML (Jinja) • CSS • Bootstrap

### **DESIGN**

#### **Graphic Design:**

Adobe Photoshop • Adobe InDesign • Adobe Illustrator

#### **Prototyping:**

Invision

## Coursework

### **UNDERGRADUATE**

Linear Algebra  
Functional Programming  
Probability  
Data Science  
Theory of Computation  
Artificial Intelligence

## Interests

Ballet, design, entrepreneurship, food innovation

<https://github.com/monicadsong>  
<http://blog.monicasong.com/>

## Experience

### **DESORA, Smart Home Cooking Appliance Startup**

Product Design Intern | June 2017 - August 2017

Worked with engineering teams to completely redesign existing smart home mobile app. Wireframed the Register, Connect, and Cook user flows.

Increased website traffic by over 400% using various SEO techniques.

Pitched, storyboarded, wrote, and created 45-page lab report detailing the company's scientific and product design process. Available for public distribution in 2018.

### **HCS DATAMATCH, Algorithm-based Matchmaking Service**

Website Programmer and Designer | September 2016 - Present

Fine-tune existing CSS and Javascript code to improve user experience of the sign-up, survey, and results processes.

Conceived of and designed entirely new website credits page.

Created promotional materials for publicity campaign, ultimately leading to a record high number of sign ups in 2017.

### **CARAMAZZA LAB, Cognitive Neuropsychology Laboratory**

Research Assistant | January 2016 - June 2016

Designed and programmed experiment using Psychopy.

Worked with Gilles Vannuscorps to demonstrate human biases in our perception of representational momentum and apparent motion.

Created stimuli by recruiting and photographing individuals and photo-manipulating their limbs.

## Activities

### **HARVARD BALLET COMPANY, Student Dance Group**

Producer | September 2015 - December 2017

Collaborate with directors and dancers to plan production timeline and deadlines to ensure a successful show opening and run.

Recruit and train 5-member tech crew for stage managing, house managing, and sound operating roles.

Designed lights and projections for the Spring 2017 and Fall 2016 shows.

## Projects

### **TECH WEEK SCHEDULER, Constraint Satisfaction Problem Solver**

December 2017

Implemented trio of algorithms (DFS, heuristic-search, and simulated annealing) to solve constraint satisfaction problem

Built functional web application using Flask, SQL-ALchemy, and Bootstrap

Deployed web application on Amazon Elastic Compute Cloud Instance

Currently used by group of 30+ dancers for Spring 2018 performance

### **STEEPTIME, Web-based Application for Tea Aficionados**

December 2016

Implemented using Python, Flask, and Javascript. Designed with Bootstrap and HTML5.