# 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 • R

#### Tools and Frameworks:

Ubuntu • Flask • Amazon Web Services • Docker • Psychopy **Web Templating:** 

HTML (Jinja) • CSS • Bootstrap

#### **DESIGN**

Adobe Photoshop • Adobe InDesign • Adobe Illustrator

#### **OTHER**

Light Design • Web Scraping

## Coursework

#### UNDERGRADUATE

Functional Programming
Probability
Data Science
Theory of Computation
Artificial Intelligence
Machine Learning
Data Structures and Algorithms

## Interests

Ballet, design, data science, food innovation

## Experience

## NATURED CO, Fresh Food Delivery Startup

Engineering Intern | February 2018 -

Work on front and back end stack of user recommendation service using React Native and Express

Generate product suggestions for users using content-based and neighborhood-based algorithms

## 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.

## 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.

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

## **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

## ROOTED, Vegan Algae Protein Bar Startup

Spring 2017

Crafted brand identity. Designed marketing, promotional, social media, and packaging material

Developed business and marketing strategy. Communicated with bar and packaging manufacturers