# Monica Song

## Education

#### HARVARD UNIVERSITY

B.A. in Computer Science August 2015 - June 2019 Cambridge, MA

#### LA CAÑADA HIGH SCHOOL

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

## Skills

#### **PROGRAMMING**

Python (sklearn, pandas, numpy) • OCaml • C++/ C

#### Tools and Frameworks:

OpenCV • PyTorch • Linux • Flask • AWS • Mturk • SQL • Docker • ffmpeg Other

HTML • CSS • Javascript • R • Psychopy

#### **DESIGN**

Adobe Photoshop • Adobe InDesign • Adobe Illustrator

#### MISC. SKILLS

Product Design • Light Design • Marketing • Branding

### Coursework

#### **UNDERGRADUATE**

Data Science
Systems Programming
Functional Programming
Probability
Stochastic Processes
Linear Models
Theory of Computation
Artificial Intelligence
Machine Learning
Data Structures and Algorithms

## Interests

Entrepreneurship, self-driving technology, computer vision, cognitive science, design, blogging, food innovation

https://github.com/monicadsong https://kaledivergence.com

## Experience

#### PERCEPTIVE AUTOMATA, Autonomous Driving Company

Data Science and Computer Vision Intern | Summer 2018

Built and deployed cognitive science experiment on Amazon Mturk. Researched style transfer techniques and tested them on dashcam data. Implemented statistical models and compared predictions with RNN.

#### NATURED CO, Fresh Food Delivery Startup

Backend Engineering Intern | Spring 2018

Built feature to synchronize admin catalog with marketplace catalog

#### DESORA, Smart Home Cooking Appliance Startup

Product Design Intern | Summer 2017

Wireframed and redesigned existing smart home mobile app Pitched and created white paper detailing the company's scientific process.

## Research

#### COMPUTATIONAL PERCEPTION AND COGNITION LAB

Undergraduate Researcher | September 2018 - Present

Work on improving computer vision applications for action prediction.

#### CARAMAZZA LAB, Cognitive Neuropsychology Laboratory

Research Assistant | Spring 2016

Implemented experiment to investigate age-related biases in the perception of body movement and limb momentum.

## Activities

#### CS182, Undergraduate Artificial Intelligence Course

Teaching Assistant | September 2018 - Present Hold office hours. Grade problem sets and exams.

#### HARVARD BALLET COMPANY, Student Dance Group

Producer | September 2015 - December 2017

Planned production timeline and deadlines. Created tech week schedule. Recruited and trained tech crew for stage and house managing roles

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

Website Programmer and Designer | September 2016 - February 2018 Fine-tuned existing UX for signup, survey, and result-viewing processes. Created promotional materials for publicity campaign.

# Projects

#### TECH WEEK SCHEDULER, CS182 Final Project

December 2017

Implemented several algorithms to solve constraint satisfaction problem. Deployed web application on Amazon Elastic Compute Cloud Instance.

## ROOTED, Vegan Algae Protein Bar Startup

Spring 2017

Crafted brand identity. Developed business and marketing strategy. Pitched idea at competitions across the nation.