MONICA SONG

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Education

HARVARD UNIVERSITY, A.B. in Computer Science — May 2019
Relevant Coursework: Data Science, Artificial Intelligence, Data Structures and Algorithms, Machine Learning, Functional Programming, Operating Systems

Experience

PERCEPTIVE AUTOMATA, Autonomous Driving Company — Summer 2018
Data Science and Computer Vision Intern
- Gathered images from company database, built user interface and deployed cognitive science experiment on Amazon Mturk. Analyzed and presented results.
- Researched neural style transfer techniques and tested them on dashcam video data.
- Implemented hidden markov model and compared predictions with recurrent neural network.

NATURED CO, Fresh Food Delivery Startup — Spring 2018
Backend Engineering Intern
- Built feature to synchronize admin catalog with marketplace catalog using React, Express, and Javascript.

DESORA, Smart Home Appliance Company — Summer 2017
UI/UX and Product Design Intern
- Worked with engineering team to completely redesign existing smart home mobile app. Wireframed the Register, Connect, and Cook user flows.
- Created 45-page white paper detailing the company's scientific and product design process.

CARAMAZZA LAB, Cognitive Neuropsychology Laboratory — Spring 2017
Research Assistant
- Implemented experiment using Psychopy to investigate age-related biases in the perception of body movement and limb momentum.

Leadership and Activities

HCS DATAMATCH, Algorithm-based Matchmaking Service — September 2016 – February 2018
Website Programmer and Designer
- Fine-tune existing user experience of the sign-up, survey, and results processes.
- Created materials for publicity campaign, ultimately leading to a record high number of sign ups in 2017.

HARVARD BALLET COMPANY, Student Dance Group — September 2016 – December 2017
Producer, Light Designer, Treasurer, Dancer
- Collaborate with directors and dancers to plan production timeline. Create tech week schedule.
- Recruit and train 5-member tech crew for stage managing, house managing, and sound operating roles.

Projects

AUTOMATIC TECH WEEK SCHEDULER, CS182 Final Project — December 2017
- Implemented algorithms to solve constraint satisfaction problem and built functional web application.
- Deployed web application on Amazon Elastic Compute Cloud Instance for use by 20+ dancers.

ROOTED, Vegan Algae Protein Bar Startup — Spring 2017
- Crafted brand identity. Designed marketing material. Developed business and marketing strategy.
- Incubated idea at Harvard Innovation Lab and pitched at I3 Challenge and other pitch competitions

Skills and Interests

Technical Skills: Python, OCaml, C++, C, PyTorch, Linux, Flask, OpenCV, Javascript, HTML, CSS, AWS, Mturk, SQL, Docker, Javascript, R, web scraping, data analysis
Misc. Skills: graphic design (Adobe Creative Suite), production design, marketing, branding
Interests: Entrepreneurship, self-driving technology, computer vision, cognitive science, design, data science, food innovation