

Bianca Yang

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Education:

Caltech — Computer Science

June 2019 (Expected)

Experiences:

Student, ME/CS/EE 134

Jan 2019 - March 2019

- Built a 5DOF robotic arm that uses a webcam powered by OpenCV to detect blocks and stack them into a pyramid shape. Developed kinematics from scratch and used ROS protocol. See video and writeup [here](#).

Software Engineer, Caltech DARPA Subterranean Challenge Team

Oct 2018 - Present

- Researching efficient methods to collapse information about rough terrain into a cost map that could be used by motion planners to guide a ground robot.

Student Researcher, Caltech, Perona Lab

Oct 2018 - Present

- Researching machine learning techniques which can minimize power usage of hierarchical sensor systems that track infrequent events.
- Built a Raspberry Pi module with a camera, ultrasonic distance sensor, PIR motion sensor, 8x8 IR grid, and proximity sensor for deployment in the lab.

Cloud + AI Software Engineering Intern, Microsoft

Jul 2018 - Sept 2018

- Improved scheduling times and monitoring of distributed GPU system for deep learning jobs by introducing blacklisting to prevent jobs from being repeatedly attempting to schedule against unusable nodes.
- Improved resource utilization and machine status tracking in web portal using Angular/[ASP.net](#)/Typescript.

Machine Learning Researcher, Caltech CS159 Course

March 2018 - June 2018

- Evaluated various network architectures for multi-task reinforcement learning of variants on inverted cartpole/pendulum with A3C as the baseline algorithm. Read our report [here](#).

Machine Learning Consultant, Virtualitics

Jan 2017 - June 2018

- Developed machine learning suite to improve efficiency of consulting projects.
- Created distributed grid search framework for faster training and evaluation of machine learning models.

Co-President and Board Member, Caltech Student Investment Fund

Oct 2015 - June 2018

- Wrote value investing based [curriculum](#) to prepare fund members to manage \$750K endowment.
- Manage annual disbursements and arrange annual speaker series.

eCommerce Marketing Manager, Efficient Living

Jun 2015 - Dec 2017

- Expanded Japanese business through [Fulfillment by Amazon](#) and managed [digital marketing campaign](#) to drive sales.
- Launched online retail business for [whiskey lovers](#).

Quantitative Research Associate, Fuller & Thaler Asset Management

Jul 2017 - Sept 2017

- Created natural language processing algorithm to analyze financial news and SEC filings to improve returns.

Awards:

3rd Place, SoCal Citadel Data Open

Oct 2018