DAPHNE POON

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EDUCATION

Harvey Mudd College – *Claremont, CA* Expected Graduation: May 2021
Bachelor of Science in Computer Science and Math *3.82 GPA*

· Hong Kong Scholarship for Excellence awardee ($> \$30,000$ USD per year).
· Relevant coursework: Autonomous Vehicles, Engineering Systems, Engineering Mathematics, Experimental Engineering, Data Structures and Program Development, Computability and Logic, Algorithms (Spring 2020)

WORK EXPERIENCE

Lyft Level 5 (Autonomous Vehicles Division) – *Palo Alto, CA* June 2020 - August 2020
Incoming Software Engineer Intern – Compute Infrastructure

· Exciting things to come!

Dropbox – *San Francisco, CA* May 2019 - August 2019
Software Engineer Intern – Search Infrastructure

· Improved user experience for an estimated 10% of Dropbox searches by building backend functionality in Golang to allow filtering by co-workers' most recently edited files.
· Achieved a 1000x speed up on an HBase backfill over trillions of edits on files by parallelizing batch runs.

Lab for Autonomous and Intelligent Robotics – *Claremont, CA* June 2018 - December 2019
Autonomous Vehicle Researcher

· Incorporated autonomous navigation abilities into a confidential multinational tractor-trailer company's loader vehicles using NumPy/Python, saving up to $\sim 80\%$ of man-hours dedicated to operating the vehicle.
· Closed a path-following control loop to ensure accurate vehicle motion along a pre-defined path within a 0.5m horizontal error tolerance.
· Implemented a smoothed RRT path-planning algorithm that prevents collisions and preserves efficiency.
· Processed camera data using OpenCV to detect and avoid obstacles.

PROJECTS AND LEADERSHIP

Autonomous Ocean Robot – *Claremont, CA* April 2019 - May 2019

· Built an autonomous ocean robot to determine the wind-current relationship near shore.
· Implemented PD control to have robot navigate autonomously to different waypoints and hold its position within a 1m radius of a waypoint while gathering data in turbulent conditions.
· Designed sensor mounts that could rotate to track the heading of a weather vane using Python and Arduino.

Autonomous Vehicle Competition – *Claremont, CA* September 2017 - November 2017

· Designed, programmed and constructed two autonomous robots to play Capture the Flag using Arduino.
· Placed second out of over twenty teams.

Committee for Activities Planning – *Harvey Mudd College* April 2018 - Present
Director

· Organize off-campus activities for students within our $\$30,000$ USD annual budget constraint.
· Increased the number of students going off-campus by over 110% within a year.

SKILLS

Programming Languages	Python, C++, Go, C, Java.
Tools	MATLAB, Git, AutoCAD, SolidWorks.
Native Languages	English, Cantonese, Mandarin.
Other Languages	French (fluent).