

GARY LEUNG

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Education

University of Toronto **CGPA: 3.94/4.00**

BA.Sc. in Engineering Science, 3rd Year Robotics

- Coursework: *Data Structure and Algorithms, Operating Systems*
- *Machine Learning* (Coursera), *Deep Learning* (Coursera)

Skills

C++, *Python*, C, JavaScript

OpenCV, TensorFlow,
scikit-learn, Linux, Git,
MATLAB

Experience

Dynamics Graphic Project - C++ *Software Developer*

May – Aug 2017

- Developed structured light imaging functions to display and compare optimized patterns for object depth recognition using the OpenCV library in C++.
- Implemented image analysis algorithms for 3D scene reconstruction.
- Updated research system with new user-centric features such as automatic data collection and error analysis functions.

CUHK Institute of Precision Engineering - *Prototype Development Researcher*

May – Aug 2016

- Wrote C code for Arduino to achieve precise control of a mechatronic arm.
- Presented to research team improvements/insights analyzed from collected model movement data, which are now implemented for next prototypes.

Projects / Extracurriculars

Autonomous Bottle-Sorting Robot

Jan-April 2017

- Designed and implemented a finite-state-machine-decision algorithm in C to perform autonomous bottle sorting. Ranked 4th out of 68 teams

Hack with IX - *Ad Data Visualization/Neural Network*

Nov 2016

- Developed an augmented reality visualization program for advertising data.
- Implemented a predictive model for future trends using a neural network.

Mechatronic Design Association - *Computer Vision Team*

Sept 2015 – Mar 2016

- Constructed a view scanning algorithm with Hough Transforms and Canny Edge Detection in OpenCV in C++ to direct autonomous submarine movement.
- Lead and managed the buoy software sub team by organizing the program structure and allocating weekly tasks.

Awards & Accomplishments

- 4x University of Toronto Dean's List
- Engineering Science Pong AI Tournament 2016 – 1st Place
- Hack the Valley 2017 – MLH Hack Harassment Award Winner
- Hack with IX 2016 – 3rd Place Winner