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Education Skills

University of Toronto

CGPA: 3.90/4.00

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

• Coursework: Machine Learning, Natural Language Processing, Data Structure and Algorithms, Operating Systems

Python, C++, C

Tensorflow, PyTorch, OpenCV, scikit-learn, Linux, Git, MATLAB

Experience

Samsung Toronto AI Centre - Research Intern

May 2018 - Now

- Working in a Deep Learning research team to push state of the art in the field of Computer Vision, particularly in Instance Segmentation and Video Object Segmentation.
- Assisting in the construction and re-implementation of research pipelines using Tensorflow in a GPU cluster environment.

Dynamics Graphic Project - Research Software Developer

May 2017 - Apr 2018

- Rebuilt imaging features for research system to display and compare optimized patterns for structured light imaging using the OpenCV library in C++.
- Implemented image analysis algorithms for depth determination in 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

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