Jullian Arta Yapeter

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SUMMARY OF SKILLS

Languages	Python, C++, C, C#, Java, MATLAB
Tools	OpenCV, PyTorch, TensorFlow, Jupyter, ROS, Docker, GCP, AWS (Lambda, EC2, S3), MongoDB
Hardware	Raspberry Pi, NVIDIA Jetson, STM32, Arduino, Altera FPGA

EDUCATION

University of Southern California *August '20 - June '23*
M.S., Computer Science (Scientists & Engineers)

University of Waterloo *September '15 - June '20*
B.ASc., Honours Mechatronics Engineering/ Artificial Intelligence Option GPA: 88.87/100
Dean's Honours List (3x ranked top 10 in class), NSERC Research Award Recipient, President's Scholarship
Courses: Computational Vision, Autonomous Vehicles, Machine Intelligence, Capstone: devpost.com/software/lilypod

Singapore University of Technology and Design *January '19 - April '19*
Exchange term, Engineering Product Development GPA: 4.83/5.0
Researched image-based segregation of blood cells for novel diagnostics under Prof. Rajesh Chandramohandas.

Deeplearning.ai Online Deep Learning 5-Course Specialization *September '19*

EXPERIENCE

Walt Disney Imagineering May '19 - August '19
R&D Lab Associate Intern - Computer Vision and Perception Team *Glendale, CA*

- Created new functionality for Disney's computer vision pipeline using Python, C++, ROS, and Docker, to improve its capacity to handle human-object interactions and more efficiently operate various actuators via DMX and OSC
- Invented a novel deep learning application in Keras to improve the transient performance of interactive attractions

IBM September '18 - December '18
AI & IoT Developer Intern *Toronto, ON*

- Prototyped a Dynamixel-based 4DoF robotic arm capable of picking up targets using inverse kinematics, as recognized via a hybridization of Faster R-CNN (Caffe) and KCF Trackers, on NVIDIA's Jetson TX2 and OpenCM
- Built a system of smart garbage bins using embedded hardware, MQTT, and Watson's IoT & ML cloud platforms

Zero Gravity Labs May '18 - August '18
Innovation Developer Intern *Toronto, ON*

- Developed applications to improve the shopping experience; a nutritional app that performs object recognition on grocery items, and an in-store AR game for collecting loyalty points using AWS, GCP, OpenCV, and Unity
- Implemented and performed benchmarking on Neural Arithmetic Logic Units (NALUs) and conditional generative adversarial networks (CGANs) in PyTorch to research its potential use in the customer loyalty industry

General Motors 2908 Innovation Lab September '17 - December '17
Innovation Specialist Intern *Kitchener, ON*

- Conducted iterative prototyping and field research to establish product-market fit for advanced technology projects
- Created and facilitated Design Thinking workshops to generate innovative solutions for various GM teams

A.U.G. Signals January '17 - April '17
Image Processing Software Engineering Intern *Toronto, ON*

- Implemented an image processing pipeline in MATLAB and Python to analyze satellite imagery (channel-realignment, spectral analysis, resolution standardization, and georeference-based transformations) for use in precision farming; resulted in more accurate data and an improvement in processing time by 300% as compared to the legacy pipeline