

Hello, I'm

Jullian Arta Yapeter

3A Mechatronics Engineering

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Skills

Languages

C/ C++/ C#
Java
Python
MATLAB
DOS & BASH
HTML, CSS & JavaScript

Tools

Visual Studio
OpenCV
SolidWorks
AutoCAD
TensorFlow & Scikit-Learn
ENVI, PolSAR Pro, PCI, SNAP

Hardware

Arduino & Raspberry Pi
3D Printing
Machining
High-Voltage Wiring
PLC, FPGA

Education

Candidate B.ASc.,
Mechatronics Engineering

Dean's Honours List (top 10)
NSERC Research Award

Related Courses:
Data Structures, Signals,
RTOS, Circuits,
Microprocessors & Digital
Logic, Sensors and
Instrumentation

Interests

Product Management,
Machine learning, Design,
Computer Vision, Robotics,
Culinary Arts, Taekwondo
(black belt), Table Sports

Experience

Innovation Specialist

Sep '17 - Dec '17

General Motors 2908 Innovation Lab, Kitchener, Ontario

- Product manager for future in-vehicle features (E-Bike App & enhanced towing visibility), implementing user-centric design thinking, sprint methodology, and rapid prototyping
- Designed and coached in lean product development workshops for GM employees to solve problems in engineering, sales, marketing, human resources, and manufacturing
- Conduct field-research and user-testing interviews to cyclically improve UI & UX

C++, C#, HTML, CSS, JavaScript, SQL, Origami, inVision, Unity, Arduino, NX, 3D Printing

Image Processing Software Engineer

Jan '17 - Apr '17

A.U.G. Signals, Toronto, Ontario

- Developed a suite of remote sensing programs to extract and analyze polarimetric parameters from satellite imagery. Improved efficiency by 300%
- Created an algorithm to perform area-weighted resolution standardization and georeference-based transformations for high-accuracy trend analysis
- Automated processes of channel-realignment, spectral analysis, and the generation of masks, histograms, and geoshapes used for post-processing and data collection

MATLAB, Python, C++, XML, DOS, ENVI, ESA SNAP, PCI, PolarisPro, OpenCV, SIFT

Machine Vision Co-op

May '16 - Aug '16

Taymer International Inc., Markham, Ontario

- Performed electromechanical assembly of custom computer vision systems (\$40,000)
- Developed vision algorithms, and GUI, for determining print legibility of product labels
- Worked with GPIO boards, area/line-scan cameras, encoders, and linear actuators

Visual C++, Machining, High-Voltage Wiring, Power Management, Feasibility Reports

Projects

Angel's Eye: Smart Security Camera for HackHarvard

Oct '17

- As a team of four, developed a security system to detect the presence of guns in live footage and automatically send a message to 911, attaching location and facial images, and notifying surrounding civilians via push notification to a mobile app

Python, OpenCV, Hair Cascade, Google Vision API, Twilio, Android, Firebase, AWS

Half-Fit Memory Allocation Algorithm

June '16

- Designed and implemented real-time low level code for efficient allocation of memory blocks based on the Half-fit methodology

Embedded-C, NXP Development Board, UART

Handwritten Optical Character Recognition to Text

May '16

- Trained KNN classifier to recognize handwritten digits, 92% accuracy
- Applied segmentation, adaptive thresholding, and pixel resampling on webcam images

Python, OpenCV Machine Learning Library