

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

Online

Stanford Machine Learning
Coursera Course

Interests

Product Management,
Machine learning, Design,
Computer Vision, Robotics,
Culinary Arts, Taekwondo
(black belt), Badminton,
Table Tennis, Billiards,
Foosball, Basketball

Experience

Innovation Specialist

Sep '17 - Dec '17

General Motors 2908 Innovation Lab

- Product manager for future-forward technologies (E-Bike App & Towing Visibility), implementing user-centric design, lean & sprint methodologies, and rapid prototyping
- Designed and coached lean product development workshops for GM employees to solve problems in engineering, sales, marketing, human resources, and manufacturing
- Conducted field-research and user-testing to cyclically improve product-market fit

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

- Developed a suite of remote sensing software to extract and analyze polarimetric parameters from satellite imagery. Improved processing time 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.

- 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 - HackHarvard

Oct '17

- 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 - Coursework

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 - Personal

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