Imaad Umar

SYSTEMS DESIGN ENGINEERING, 2016
University of Waterloo

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Computer Vision | Machine Intelligence | Electronics | Systems |People

SOFTWARE
Python
OpenCV, SKImage
NumPy
MATLAB
C#
C++
Linux,OSX,Windows

ELECTRONICS
Arduino
Intel Edison
Raspberry Pi

EDUCATION
University of Waterloo
BASc
Systems Design Eng.
Class of 2016

ARB Labs Inc, Toronto, Ontario — May'15 - Aug'15
Software Developer, Image Processing

Created production ready image processing software used in live demos
Designing classifiers using machine learning techniques
Working with RGB and "depth" images from specialized sensors
Optimizing img. proc. software using linear algebra concepts

Canon Inc. Innovation Lab, Kitchener, Ontario — Sep'14 - Apr'15
Software Developer/UXUI

Interim technical lead
Multiple software and hardware prototypes
Image processing using OpenCV
Electronics projects involving programing Intel Edison boards
Full Stack Web Development

COM DEV Space Intl, Cambridge, Ontario — Sep'13 - Dec'13
Software Developer

Created software used by entire manufacturing team
C# Windows applications interfacing with SQL database

University of Waterloo, Waterloo, Ontario — Jan'13 - Apr'13
Department of Engineering
Research Assistant

C# engine to forecast emergency room wait times
Translated MATLAB code to C#

PROJECTS

Emotion Detection Through Speech

Neural Network system that can identify users emotional state by analyzing pitch from speech samples.

Tech: MATLAB

Content Based Search for Medical Images

Engineering capstone project; Index and retrive images based only on image content

Tech: Python, OpenCV, NumPy, MATLAB

Hephaestech Corp.

Student consulting firm focusing on automation and manufacturing projects

Tech: Arduino, Rasp Pi, Image Processing, Machining

Haptic

Programmable touch and display surface with vertically moving "pixels"

Tech: Arduino, Electronics