

# Imaad Umar

SYSTEMS DESIGN ENGINEERING, 2016  
University of Waterloo

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Computer Vision | Machine Intelligence | Electronics | People

## SOFTWARE

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

### Canon Inc. Innovation Lab, Kitchener, Ontario

Software Developer/UXUI

Sep'14 -  
Apr'15

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

## ELECTRONICS

Arduino  
Intel Edison  
Raspberry Pi

### COM DEV Space Intl, Cambridge, Ontario

Software Developer

Sep'13 -  
Dec'13

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

## EDUCATION

University of Waterloo  
BASc  
Systems Design Eng.  
Class of 2016

### University of Waterloo, Waterloo, Ontario

Department of Engineering  
Research Assistant

Jan'13 -  
Apr'13

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

### Flow Consulting Group, Vancouver, B.C.

Mechanical Engineering Student

May'12 -  
Aug'12

Data analysis on server cooling energy use and mitigation

## PROJECTS

### Emotion Detection Through Speech

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

Tech: MATLAB

### Haptic

Programmable touch and display surface with vertically moving "pixels"

Tech: Arduino, Electronics

### Hephaestech Corp.

Student consulting firm focusing on automation and manufacturing projects

Tech: Arduino, Rasp Pi, Image Processing, Machining

### Machine Shop Sign In

Software to streamline student sign in procedure. Adds machine waitlist with email notifications feature. Enables data collection and analysis.

Tech: C#, SQL