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# VARUN DAVE

# Summary of Qualifications

- Languages: Java (3+ years), C++ (3+ years), C# (4+ years), MATLAB (4+Years), ASP.NET (3+ years)
- Web Management: HTML, CSS, MsSQL, and JavaScript (Personal Projects),
- Experience with .NET Web Development stack (3+ years) and Android development (1.5 years)
- Excellent teamwork skills acquired through competitive sports and leading a small team of computer science/engineering students to develop www.uwic.ca
- Passionate about developing outstanding products and learning new technologies

# Work Experience

## Bioinformatics Research Assistant, McMaster University, Hamilton

Sep-Dec 2013

- Developed a pipeline for QIIME to allow biologists to analyze human micro biome data with a PHD candidate in Perl
- Researched and implemented the best OTU (Operational Taxonomic Unit) picking method for pipeline to improve speed and accuracy using Python

#### Software Engineering Intern, Qualcomm Technologies Inc, Markham

Sep-Dec 2012

- Developed an internal tool using Agile methodologies in C# and MATLAB to conduct psychometric image studies for gamut mapping of display technologies
- Implemented database system using SQL to securely store statistics from studies

# **Application Programmer,** Ontario Ministry of Health and Long Term Care, Toronto Jan-Apr 2012

- Critically analyzed and fixed inaccessible websites for people with a disability using various web technologies in ASP .NET and PHP
- Recommended 13 critical changes to web portal applications and over 60 moderate recommendations to improve the experience for visually impaired visitors.

# **Projects**

### **High-SNR Real-Time 3D Visualization of Raw Ultrasound Scans**

2013-2014

- Worked with a group of 5 electrical and computer engineering students to develop a MATLAB suit in to generate 3D rendering for Ultrasound Scans
- Implemented a filtering algorithm that improved Signal to Noise (SNR) ratio by 13 bB and Contrast to noise ratio (CNR) by 12 dB

#### **Android App:** Gita in English with Audio

2013 - Present

 Developed a successful Android app for users to stream audio book while reading using Java and Android SDK

# **Android App:** *PhysioBuddy*

2014 - Present

 Developing an Android application in Java that presents real-time visualization and feedback for shoulder rehabilitation exercises using a wearable device called Myo

### Cricket Ball Tracker 2011-2013

 Created a desktop application using C++ to track red cricket ball using image processing algorithms at 10 frames per second (fps)

#### Education

**University of Waterloo:** Honors Bachelor of Applied Science

June 2015

#### **Computer Engineering with Biomechanics Option**

Interests: Cricket, running, mobile development, biomechanics, and image processing