## RAJUL ARORA

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## **SKILLS**

- Knowledge and experience in: C/C++, Android SDK(Java), MATLAB, Arduino, AutoCAD, SolidWorks, PHP and MySQL
- Able to work individually and as part of a team, as demonstrated through work at the Waterloo Autonomous Vehicles Lab
- Experience working with Windows and in a UNIX environment (Linux and Mac OSX)
- Excellent project management skills proven through effective management of multiple projects on the University of Waterloo's Robot Racing Team
- Printed Circuit Board design experience using EagleCAD
- Proficient in Adobe Photoshop, Adobe Lightroom, Microsoft Office Suite and iWork

# WORK EXPERIENCE

Robotics Developer Co-Op

Apr 2013 - Aug 2013

Waterloo Autonomous Vehicles (WAVE) Lab, Waterloo, ON

- Designed a Printed Circuit Board using EagleCAD to simplify switching between power sources
- Controlled servo and throttle motors using serial communications to specify their physical limitations
- Worked with another student to ensure the given software commands matched the resulting mechanical response by using a control loop feedback mechanism
- Used SolidWorks to design a roll cage as well as numerous mounts for sensors to protect sensitive components from damage

Pharmacist's Assistant

May 2012 - Aug 2012

Fairfield IDA Pharmacy, Ottawa, ON

- Prepared and dispensed prescription medicines while attending to customers
- Used strong interpersonal skills to ensure customer satisfaction
- Efficiently handled large orders from retirement residences on a weekly basis

Laboratory Research Assistant

June 2010 - Aug 2010

Ottawa Hospital Research Institute, Ottawa, ON

• Performed chemical reactions such as a Polymerase Chain Reaction and Gel Electrophoresis to provide usable data about the genetic traits of a mouse

# VOLUNTEER EXPERIENCE

University of Waterloo March Break Open House

 Promoted Waterloo's Faculty of Engineering and guided prospective students to various events

Greely Community Centre Day Camps

- Acted in a leadership role to supervise and coordinate students through various activities held around Ottawa
- Improvised, developed, and managed activities and competitions

## **EDUCATION**

Candidate for Bachelor of Applied Science, Electrical Engineering, University of Waterloo, Waterloo, Ontario, Class of 2017

## Relevant Assignments

Pedometer - Engineering Design with Embedded Systems

• Created an Android application that uses a device's accelerometer, gyroscope and magnetometer to direct the user to a chosen destination.

## Relevant Courses

Digital Computers, Algorithms and Data Structures, and Embedded Systems

Ontario Secondary School Graduate, Lisgar Collegiate Institute, Ottawa, Ontario, Class of 2012

# Relevant Assignments

Battle City - Introduction to Computer Science (ICS3U)

• Re-created a 1990s multi-directional shooter video game using C and Allegro Graphics Library

## Relevant Courses

Towers of Hanoi - Introduction to Computer Science 2 (ICS4U)

• Used C++ (Classes and Inheritance) and Allegro Graphics Library to draw and solve the Towers of Hanoi

Login Page - Introduction to Computer Science 2(ICS4U)

• Applied the concept of relational databases by creating a login database and interface using PHP and MySQL

# EXTRA-CURRICULAR ACTIVITIES

- Team lead for the University of Waterloo's Robot Racing Team
  - Responsible for guiding and teaching 1st and 2nd year mechanical students
  - Manage, inspect and control the mechanical work used on an autonomous car
- Competitive badminton player and active member in the University of Waterloo Badminton Club
- Active member of Lisgar Collegiate Institute's badminton team for 3 years
- Self-Taught photographer

## AWARDS

- University of Waterloo President's Scholarship, 2012
- Lisgar Collegiate Institute Silver Medal, 2011 & 2012
- Award for the highest grade in Communications Technology, 2011

Availability: Jan 3, 2014 - Apr 30, 2014(4 Month Winter Work term)