# RACHIT SHAH

# 2A Honours Electrical Engineering

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## **PROFILE**

- Aspiring Electrical Engineer with a strong technical background
- Firsthand experience with oscilloscopes, digital multimeters, logic analyzers and PCB design
- Understanding of FPGAs, ARM processors and microcontrollers
- Knowledge and experience with VHDL, Assembly, C++, C#, Java, SQLite, HTML, CSS, JavaScript
- Years of refined skills with AutoCAD 2D and 3D
- Strong background in Android programming and app development
- Exceptional problem solving and leadership skills developed through work experience

#### **EXPERIENCE**

# SharePoint Coordinator: Aon Hewitt, Sept 2015 - Dec 2015

- Designed various sites to act as repositories and provide customized collaborative tools
- Developed using HTML and JavaScript as well as SharePoint tools
- Managed large scale projects and designed efficient site architecture

# Process Engineer: Vins Plastics Ltd., Jan 2015 - April 2015

- Responsible for creating wiring schematics and plant layout drawings using AutoCAD
- Performed quality assurance on various products with industrial standard lab equipment
- Developed e-commerce website for company products
- Assisted in integration of paperless logistics system through refinement and reorganization of company procedures, formulations and test methods

# **PROJECTS**

#### Smartlet

- Built a power adapter interfaced with webserver, allowing control from virtually anywhere
- Used Lua scripting to program Wi-Fi module that regulated two relays

## **VHDL Signal Controller**

- Programmed Altera FPGA to actuate LEDs based on various parameters
- Generated simulations and worked with RTL views to analyze functionality

## Fitness Tracker App

- Developed Android application to analyze workout information and provide useful statistics to help track progress and achievements
- Implemented embedded database design using SQLite

# Waterloo Aerial Robotics

- Worked on modifying and improving autopilot board for remotely operated aircraft
- Grown knowledge of PCB design and vehicle electronics

#### Bluetooth RC Car

- Used Arduino microcontroller to integrate various components and sensors
- Car is controlled by a self-developed Android application
- Designed and soldered own motor controller board
- Gained understanding of standardized communication between hardware

# **EDUCATION**

# Candidate for Bachelor of Applied Science

Relevant courses include:

Algorithms and Data Structures (C++), Digital Computers (ARM development with Assembly), Electronic Circuits, Digital Circuits (VHDL, Altera), Design with Embedded Systems