

# Muhammad Balagamwala

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Status: US Citizen

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## Career Objective

Seeking a full-time employment or an internship in the field of Electrical or Computer Engineering

## Education

**Bachelor Of Science, Electrical Engineering**

**May 2017**

University of Houston

**GPA: 3.0**

## Relevant Courses

- |                        |           |                            |           |
|------------------------|-----------|----------------------------|-----------|
| • Digital Logic Design | Fall 2015 | • Programming Applications | Fall 2014 |
| • Electronics          | Fall 2015 | • Microprocessors Systems  | Fall 2014 |

## Work Experience

**Electrical Engineering Intern**      **HPE**      Houston, TX      June 2016 - Present

- Developed a tool using JavaScript and C# to track items using RFID trackers and RFID readers
- Developed a front end using JavaScript and NodeJS to display data acquired from TI SensorTag

**Software Developer Intern**      **Cosine Additive**      Houston, TX      Dec 2015 – June 2016

- Developed a GUI to be used by the customer to control the 3D printer wirelessly; also communicate with devices on the printer which includes Arduino, Smoothieboard and servo drivers.
- Created the communication platform based in MySQL to allow the 3D printer to be controlled by multiple computers at the same time from anywhere in the world.

**Electrical Engineering Co-op**      **CenterPoint Energy**      Houston, TX      Jan 2015 – May 2015

- Worked on projects to ensure safe and reliable operation while preventing outages
- Programmed relays and worked with line drawings, relays, breakers, transformers and smart control devices.

## Projects

**Senior Design Project - Follow-Me Bot**      Spring 2016

- Design and develop a robot that follows a specific person and can carry weight of at least 20lbs
- Avoid stationary and moving obstacles while still following the target.

**Home Automation System**      Spring 2014

- Developed a system using ATmega328 microcontroller to wirelessly control electrical outlets from web
- Developed a remote motion sensor to detect motion and send data to central system which controls light
- Utilized C++ and HTML along with 433.4MHz RF transmitters, receivers and an Ethernet module

**Google Chrome Extension (RateMyUH)**      Spring 2014

- Developed a Google Chrome extension to show RateMyProfessor.com ratings for professors on University of Houston's class enrollment page
- Developed the extension in JavaScript as well as a server-side PHP script to scrape data and store in MySQL database which can be accessed by the extension.

**Automatic Video Downloader**      Spring 2014

- Developed a Windows application in Visual Studio using C# to download videos from a website automatically
- The application is able to download protected videos that cannot be downloaded easily.

**Robotics Design - IEEE NXT Robotics (First Prize)**      Fall 2012

- Designed and programmed an autonomous robot to navigate a track at speed using C language
- Won the first prize for being the fastest robot to navigate the track

**Commercial Web Development**      Spring 2013

- Designed customized e-commerce websites for clients, using Wordpress and Joomla CMS
- Features included shopping cart, payment processing through Paypal, email forwarding, detailed visitor tracking using Google webmaster tools and social media integration

## Skills

- Programming Language: C#, JavaScript, C++, C, MySQL, Java, PHP, HTML, Matlab, Excel, Assembly
- Hardware: RaspberryPI, Arduino, MSP430, Lego Mindstorms, VEX
- Languages: English, Urdu, Hindi

## Interests

- Multiroters, 3D printers, volunteering

## Affiliations

- Member of Scholar Enrichment Program and Muslim Student Association
- Volunteered at Helping Hands for Relief and Development