

# Mohammad Fahad Rahman

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## Education

### **Bachelor of Applied Science, 3<sup>rd</sup> Year**

2015-Present

University of Toronto

Department of Electrical and Computer Engineering

**Relevant courses:** Algorithms and Data Structures, Communication and Design, Engineering Strategies and Practices, Databases, Computer Organization, Operating Systems

### **The Web Developer Bootcamp**

Summer 2017

### **Machine Learning A-Z**

2017-Present

Online Udemy Course

## Technical Skills

**Programming Languages:** C/C++, Java, HTML, CSS, JavaScript, Matlab, Python, C#

**Web Development:** Bootstrap, nodeJS, MongoDB, SQL, jQuery, React

**Hardware Description Languages:** Verilog, Assembly, Arduino, Ni Multisim

**Operating Systems:** Linux, Microsoft Windows

## Relevant Engineering Experience

### **Geographical Information System, Team Leader**

Winter 2017

- Managed a team of 4 students to develop a geographical information system (GIS)
- Implemented complex algorithms such as Dijkstra's, A\*, greedy, two-opt, simulated annealing to approximate solutions for a modified travelling salesman problem
- Optimized code to reduce run time of algorithms
- Designed and developed graphical user interface for the GIS
- Ranked 25<sup>th</sup> overall from a total of 100 teams in approximating solutions for the TSP

### **University of Toronto Robotics Association, Team Member**

Winter 2017

- Collaborated with 4 team members to design an autonomous robot to compete in UTRA SumoBot competition
- Created and analyzed simulations to determine physical design on robot
- Evaluated robot design by modelling it on SolidWorks
- Implemented battle logic into Arduino microprocessor
- Performed rigorous battle logic tests
- Debugged battle logic code to fix performance issues

## **Relevant Engineering Experience Continued**

### **Engineering Strategies and Practices – II Course, Team Member** Winter 2016

- Modelled and designed an ecofriendly outdoor cabin for Green Venture's branch in Hamilton
- Mobilized a team of 4 students by creating a Gantt chart consisting of 50 tasks
- Organized team meetings and communication between team members
- Managed communication between team, project manager and client
- Analyzed client needs to determine specifications that final design must contain

## **Relevant Project Experience**

### **YelpCamp Web App, Personal Project** Summer 2017

- Created a web application that functions as a ratings website for camping spots
- Designed front-end using CSS, Bootstrap, Semantic UI
- Developed back-end using node.js and RESTful routing conventions
- Created and maintained databases for users, campgrounds and comments using MongoDB to associate all the data sets
- Enabled user authorization to website by utilizing Passport.js
- Deployed website using Heroku (**available at** <https://hidden-scrubland-41124.herokuapp.com>)

### **Patatap Clone, Personal Project** Summer 2017

- Created a basic clone of the Patatap musical animation web application
- Used paper.js and howler.js to create animations and apply sound effects to application
- Designed a dynamic front-end application using jQuery for DOM manipulation

### **Facebook Chatbot, Team Member** Winter 2017

- Created a Facebook Messenger chatbot that can determine the mood of the person chatting with it
- Implemented IBM Watson's text analyzer to analyze text messages sent to it
- Used text analyzer to detect distress signals in messages and connect person to appropriate helpline/authority
- Deployed application using Heroku

## **Additional Employment Experience**

### **Pita Land, Staff Member** Summer 2017

- Worked part-time as a general worker to open store each shift, serve customers and clean the store

### **Kitchener Superstars, Sales Representative** Summer 2015

- Interacted with home owners going door-to-door to offer driveway paving services
- Co-wrote a sales script with supervisor that increased sales by 5%