Mohammad Fahad Rahman

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Education

Bachelor of Applied Science, 3rd 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, Udemy   Summer 2017
Machine Learning, Stanford (Coursera course)   2017-Present

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 25th 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

<u>Relevant Engineering Experience Continued</u>

Databases Course, Team Member   Fall 2017
- Learnt how to run complex queries on different types of schemas
- Created an application to run queries given user input by embedding SQL in a java application
- Learnt how to define schemas using SQL
- Implemented a postgreSQL student database using design methods such as Boyce-Codd Normal Form, Third Normal Form, the E/R model etc.

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%