Tawsif R. Siddiqui
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Education

University of Maryland, College Park — College Park, MD
B.S., Computer Engineering — *Expected Graduation: May 2018*

Skills

- Ruby
- Prolog
- C
- Java
- MongoDB
- Matlab
- OCaml
- Android Studio

Experience

Guest Researcher, National Institute of Standard and Technology (NIST) — Gaithersburg, MD
May 2016 – August 2016

- Worked on developing an Additive Manufacturing database using MongoDB
- Developed a schema for the data structure of the database using Oxygen XML editor
- Made a navigation schema for the database exploration using Protégé
- Created a process where users enter data in an Excel datasheet that automatically converts it to a XML schema and uploads data in the Data Base directly. Improved then workflow by 70%
- Used Matlab to do some distribution analytics for 'Round Robin' tests for IN625 powder conducted by NIST

Sociotechnical Data Intern, Georgetown University — Washington, DC
December 2014-July 2015

- Developed a website for the Office of the Senior Vice President for Research
- Primarily used content management system (Drupal) to design the website
- Used HTML5, JavaScript and jQuery to improve user experience with a more modern and user-friendly website.
- Drafted written content for website including the AvesTerra page
- Visit http://osvpr.georgetown.edu/ to learn more about the projects

Projects:

Emotional Quotient App – QUEST Honors Program — *November 2016 - Present*

- Surveyed people to get data to make the preliminary design
- Created the wireframe using marvelapp
- Made a mock preliminary user interface using Android Studio
- Interviewed people about the prototype and made changes to the wireframe based on the feedback
- Currently developing the app using Android studio based on our wireframe. It will be on GitHub by early February

Terps Racing – Baja Racing Car — *September 2016 - Present*

- Objective: Need acceleration, thermal and performance data for the car
- Used accelerometer sensors to track acceleration of the car in different environment and in different axis.
- Used Intel Edison to get continuous data from the accelerometer sensor and save it in a SD card
- Coded everything in C using Putty in Intel Edison to get the acceleration data
- Tried to use Thermal sensor with Edison, but did not work. Going to use TI (Texas Instrument) microcontroller for this purpose and later will code the accelerometer with the TI controller.

Mechanical Guitar Strumming Device — *Fall 2015*

- Used Arduino as our microcontroller
- Reviewed and updated design of the prototype and Arduino code as needed
- Works only for general down-up strumming pattern
- Future plan is to implement it with different strumming patterns and use it for guitar plucking too.

Intro to Engineering Design Project (Stair Climbing Robot) — *Spring 2015*
Team Leader

- Directed and supervised the planning, design and production of the team Stair Climbing Robot
- Used Creo to make the initial designs for our project
- Outlined and revised both the preliminary and final design reports