

Md Towhidul Absar Chowdhury

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EDUCATION

ROCHESTER INSTITUTE OF TECHNOLOGY | MS IN SOFTWARE ENGINEERING

Expected May 2017 | Rochester, NY

ROCHESTER INSTITUTE OF TECHNOLOGY | BS IN SOFTWARE ENGINEERING

Expected May 2017 | Rochester, NY

Dean's List (7 Semesters) • Cum. GPA: 3.58 / 4.0

EXPERIENCE

ROCHESTER INSTITUTE OF TECHNOLOGY | GRADUATE RESEARCH ASSISTANT

Aug 2016 – Present | Rochester, NY

- Responsible for research in the field of urban analytics and sensors in the Department of Software Engineering. Currently working with Dr. Pradeep Murukanniah and Dr. Naveen Sharma.

RIT NTID CENTER FOR ACCESS TECHNOLOGY | SOFTWARE DEVELOPER

February 2016 – December 2016 | Rochester, NY

- Created an Android application that provides an automated speech recognition system for communication between deaf and hearing.
- Created a back end NodeJS server to supplement the application and enable ASR message transmission.

THOMSON REUTERS WESTLAW | SOFTWARE ENGINEER INTERN

Jan 2013 – May 2013 | Palo Alto, CA & Ithaca, NY

- Elicited requirements and features from attorneys and implemented the requested features in the software.
- Took the initiative to implement a new interface and an automated form creation system to decrease redundancy in the existing development cycle.

WELCH ALLYN | SOFTWARE TEST ENGINEER

May 2013 – Aug 2013 | Skaneateles Falls, NY

- Conducted formal and ad hoc software testing on the Connex CS software.
- Responsible for providing results that decided whether the software was release ready or not.

PROJECTS

ASR FOR MEETINGS APP | NTID CENTER FOR ACCESS TECHNOLOGY

- **Automated Speech Recognition (ASR) for Deaf/Hard-of-Hearing**
- Skills Used: **Android, NodeJS, DragonSDK, Loopback, AngularJS**
- Developed application and ASR module in native Android.
- Developed NodeJS server to handle real-time communication.

ROCREADAR | SENIOR PROJECT

- Skills Used: **NodeJS, AngularJS, Loopback, MySQL, Linux, Android** in **Google Cloud Platform**
- Augmented reality application merging digital media with printed publications.
- Developed NodeJS server for image processing.
- Implemented computer vision algorithm in Android for augmented reality.

CRIME VICTIMIZATION PREDICTOR | DATA MINING PROJECT

- Skills Used: **R**
- A prediction model in R to predict crime victimization based on social factors.
- Implemented a Bayesian Network, kMeans and kNN to compare and contrast the accuracy.
- kNN had an accuracy of 90% with 15 societal attributes.

FUZZER WEB CRAWLER FOR WEBSITE VULNERABILITIES | SOFTWARE SECURITY COURSE PROJECT

- A crawler that can find common security vulnerabilities in the target website, including SQL Injection, XSS etc.

CLICKWARS IOS APPLICATION | APPLE IOS APP CHALLENGE 2015

- Skills Used: **iOS, AVFramework, Swift**
- Developed, within 5 days, an iOS app that utilized augmented reality for a game of tag between friends.
- Implemented Multi-peer connectivity framework which allows communication between players.
- Implemented face detection algorithm to accurately aim for the face of the opponent.

STOCK MANAGEMENT PORTAL

- Skills Used: **ASP.NET, C#, Javascript, SQL Server**
- Stock management portal to buy and sell stocks, and post updates on social media regarding the market.
- Developed the back-end ASP.NET authentication server with secure session management.
- Designed the MySQL database schema.

RASPBERRY PI KERNEL

- Skills Used: **C, ARM Assembly, gdb**
- Developed a basic kernel image for Raspberry Pi to perform basic image processing of either raw or bitmap images.
- Programmed the UART controller for the PI for interactive input and perform elementary floating point arithmetic.

SKILLS

PROGRAMMING

Experienced:

Java, Python, JavaScript, NodeJS, R, Android, HTML5 , CSS, Bootstrap, Less, MySQL, Ruby, C#, Git, Linux, ArcGIS, Tableau

Familiar:

C , C++ , PHP , Assembly, Ruby on Rails , Django , ASP.NET, iOS, Swift, Objective-C

OTHERS

Process Methodologies

SCRUM, OpenUP, Test Driven Development

RELEVANT COURSES

- Machine Learning in Software Engineering
- Geographic Information Systems
- Visual Analytics
- Software Architecture
- Engineering of Distributed and Concurrent Systems
- Engineering of Software Subsystems

ACTIVITIES

BANGLADESH CULTURAL SOCIETY | PRESIDENT & CO-FOUNDER

ROCK THE VOTE 2012 VOLUNTEER

REFERENCES

DR. NAVEEN SHARMA

PROFESSOR AND CHAIR OF THE SOFTWARE
ENGINEERING DEPARTMENT

Email: naveen@se.rit.edu

DR. J. SCOTT HAWKER

ASSOCIATE PROFESSOR OF THE SOFTWARE
ENGINEERING DEPARTMENT

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DR. PRADEEP MURUKANNAIAH

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ENGINEERING DEPARTMENT

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