SYED TOUSIF AHMED

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- (585) 286 - 8218
- Available Summer 2016. Looking for Co-op/Internships in Software Engineering, Hardware Engineering, Machine Learning Research, Computer Vision Research

EDUCATION

Rochester Institute of Technology, Rochester, NY
B.S. in Computer Engineering
Immersion: Language Science
B.S. Degree expected May 2018

COURSES

Computer Science I & II
Digital Systems Design I & II
Machine Learning (Coursera)
Convolutional Neural Networks for Image Recognition (Machine Learning Lab, RIT)

SKILLS

PROGRAMMING LANGUAGES
Proficient with: Java, Python, VHDL
Familiar with: Swift, Verilog, PHP, JavaScript, MySQL, C, C++, C#, MATLAB, HTML, CSS

SOFTWARE AND DEVELOPMENT TOOLS
Proficient with: IntelliJ IDEA, Eclipse, Android Studio, Git, CVS, Unity3D
Familiar with: OpenGL, OpenCV, Vuforia, Wikitude, XCode, Cadence OrCAD, PSpice, Xilinx Vivado, Altera Quartus, Multisim

OPERATING SYSTEMS
Proficient with: Windows
Familiar with: Mac OS, Linux

HARDWARE
Proficient with: Oscilloscope, Function Generator, Multimeter, Spectrum Analyzer, Breadboard, Soldering
Familiar with: Xilinx Nexys 3 FPGA Board, Beaglebone Black, Raspberry Pi

HONORS

NSF I-Corps Funding Recipient
Nominated for RIT Outstanding International Student Award 2015
RIT International Scholarship

LEADERSHIP

RIT ACM SIGCHI (Vice Chair)
RIT World Music Ensemble
Multidisciplinary Robotics Club (MDRC)
RIT Emerging Professionals Leadership Certificate
Volunteering at Mentaid and Hope Home Education Center – Calcutta, India
Peace Ambassador for APCC 2011 – Fukuoka, Japan

EXPERIENCE

COMPUTER VISION DEVELOPER
Ahold USA | Quincy, MA
Accepted a Co-op offer starting from 18th January 2016 - 1st June 2016

RESEARCH ASSISTANT
FETLab, GCCIS, RIT | Rochester, NY
September 2015 - Present
- Assist in research projects in the area of human-computer interaction, concentrating on wearable and mobile computing
- Set up and calibrate 3D printers, CNC routers, laser cutters, Kinect and other tools for computer vision, solder circuits, test out new equipment, set up web pages, write micrcontroller code, implement 3D programming and Kinect programming tasks

COMPUTER VISION RESEARCH ASSISTANT
Discover Lab, School of Media Sciences, RIT | Rochester, NY
August 2015 - Present
- Build Augmented Reality, Virtual Reality and Mixed Reality systems for research projects in the area of print media and communication
- Technologies used/using: OpenGL, OpenCV, Unity3D, Vuforia SDK, Wikitude SDK, HTML, CSS, JavaScript, MySQL, PHP, Python, D3.js, Git, Android, iOS, Google Glass, Google Cardboard, Samsung VR, ODG R-7, Project Tango

ANDROID AND GOOGLE GLASS APPLICATION DEVELOPER (Co-op)
Discover Lab, School of Media Sciences, RIT | Rochester, NY
June 2015 - August 2015
- Developed, debugged, and optimized an augmented reality app, called RocreadAR for a research project aiming at integrating different media for publishing and communication
- Wrote Image Processing algorithms using OpenCV and Python to enhance detection and tracking of target images
- Implemented new interactive features such as manipulating a 3d object using ray casting, augmented reality advertisement boards etc.
- Wrote PHP scripts and created MySQL databases to track app usage data and created charts for data analysis using D3.js
- Collaborated with clients to assess needs and created viable and profitable business model
- Received NSF I-Corps Funding and assigned as the Student Team Leader to commercialize prototypes

SUPPLEMENTAL INSTRUCTION LEADER
Academic Support Center, RIT | Rochester, NY
January 2015 – May 2015
- Conducted an hour long study session twice a week, through the last day of classes, to guide students with historically difficult courses (courses with high rates of D, F and withdrawal)
- Planned and marketed SI Sessions through weekly session announcements in class and through email
- Engaged with faculty partner and devised SI session strategies using different learning techniques
- Attended weekly staff training, evaluated and reflected on SI sessions conducted by colleagues

PROJECTS

ARESUME
Access at Google Play Store: www.goo.gl/HAKvKm. Also on GitHub
An Augmented Reality android app that gives a fun and interactive resume reviewing experience. Made using Unity3D, Vuforia SDK, and Android Studio. Print this resume from http://goo.gl/1p9W49 and install the app to view augmented reality in this resume.

CLICK WARS - RIT IOS APP CHALLENGE HACKATHON 2015
Access at: www.goo.gl/4qX6sA
Attended "Introduction to Swift" workshop by Apple and learned swift language in 7 hours. Made a game based app called "Click-Wars" in five days. Implemented Multi-peer Connectivity framework which lets nearby people connect over Wi-Fi or Bluetooth. Implemented face detection algorithm to accurately aim for the "face" of the opponent. Competed against 23 teams and over 200 participants.

RESEARCH ON TRIAL DIVISION VS LUCAS-LEHMER ALGORITHM
Access at: www.goo.gl/ZoVC3h
Research question: Out of trial division algorithm for finding primes and Lucas-Lehmer algorithm for finding Mersenne primes, which algorithm would yield a big prime number faster? Produced theoretical and experimental results on the algorithms using Maple. Concluded that Lucas-Lehmer algorithm produces big prime number faster but Trial-division algorithm recognizes composite number faster than Lucas-Lehmer algorithm.