Faizan Ali

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Education

2017-Till Present — Doctor of Philosophy, **University of Illinois at Chicago (UIC)**
Major: Computer Science,
Field: Netwrok Security and Systems

2013-2017 — Bachelors of Science, **Lahore University of Management Sciences (LUMS)**
Major: Computer Science, CGPA: 3.54/4
Relevant Courses: Networks Computing, Advanced Operating Systems, Data Mining, Computer Systems, Topics in Internet Research

Research Experience

Summer 2016 – Spring 2017

Implementing Utility-Aware ECMP Technique
We implemented the ECMP (Equal-cost multi-path routing) on the routers using the P4 language. We tested and proved that our technique is better than the techniaues that are used now a days. We implemented it on the data path to make it more efficient and fast. We reduced the latency and increased the throughput of the network. The project is under the supervision of Ihsan Ayub Qazi.

Spring 2015 - Summer 2016

Collusion Networks And Reputation Fraud
Reputation fraud is a phenomena widely prevalent on social media platforms like facebook, twitter, instagram, etc. Various online services provide fake comments, likes, and followers to increase the popularity of individuals, celebrities and brands alike. We looked on how the underground blackhat websites like SEOClerk sell the likes on the social sites. Collusion networks monetize their services by displaying advertisements on their websites and offer a variety of paid reputation manipulation plans. We have also recognized several distinct characteristics that could be used to identify between legitimate Instagram users and member of collusion networks. We hope to build a classifier in the future that will identify if a user is part of a collusion network given their Instagram profile. The project was under the supervision of Dr. Fareed Zaffar.

Fall 2015 - Summer 2016

Smart Grids: Handling Home Appliances Smartly
In homes, there can be multiple devices running. The overall objective of the project was to evaluate the large-scale implementations of different Demand Side Management (DSM) strategies. For that we used different IoT devices like heat sensors and measurement devices etc. The devices had the power monitoring capability to measure the amount of power consumed by the appliances and send this data to home controller. There was also an Android app which tells the user which devices are running and using how much energy. The user can stop/start those appliances at will. The project was under the supervision of Dr. Naveed Ul Hassan.

Teaching Experience

Fall 2015 — **CS 200: Intro to Programming**
Worked as a Teaching Assistant with Dr. Naveed Arshad

Spring 2015 — **CS 220: Digital Logic Circuits**
Worked as a Teaching Assistant with Dr. Jahangir Ikram

Fall 2016 — **CS 225: Fundamentals of Computer Systems**
Worked as a Teaching Assistant with Dr. Junaid Haroon Siddiqui

Internships

Summer 2014	**ACM Summer Internship** Did the internship organized by ACM Student Chapter, LUMS. This internship primary focused on teaching us state-of-the-art languages and tools, which are being used for developing Android and Web apps.
Summer 2015	**Smart Locker** We worked on making a smart locker for Android and Iphones. My work was basically on making the app and testing the app.

Course Projects

VF Training	Made a virtual firefighter training platform in Unity for Human-computer Interaction. Conducted user research to understand user requirements, made design alternatives, low-fi and hi-fi prototypes. .
Prince of Layyah	The first-person shooting game made on the Real Engine for the Computer Graphics project. The game had 3 different maps and had different animations.
Crime Patrol	The project for Data Mining course. We did the data analysis on the data set of the crimes in America. We classify the areas with respect to the extent crime and also that which type of crimes are more common in which areas. We used rapid miner for classification then used python script to map the result on the real map.
HeyDoc	The project for Software Engineering course. It was a web-app made on Ruby on Rails, used to find the near-by doctor and having on line appointments with them. The app was later incubated by LUMS Center of Entrepreneurship.
Roller Coaster	Made a 3D roller coaster game on Matlab with 3 levels and attractive UI. The game also simulates the roller coaster using physics rules.

Honors and Awards

2011 Gold Medalist at school for securing 90%+ marks.
2015 Participated in the MENSA IQ test session held at NUST H-12 - Islamabad.
IQ score 135 translated into 99th percentile.

Technical Skills

Programming Languages:	php, mysql, html, Access, C++, C, java, Python, openGL, JavaScript, Ruby, Ruby on Rails, CSS, Haskell, NodeJs, R Language
Softwares:	Matlab, Visual Studio, Android Studio, Unity, Unreal Engine, RapidMiner

Interests and Activities

Freelancing	Did work on CampusFeed and Paycheck which were tech startups.
Sports	Like to play cricket, football, badminton, table tennis, tennis and squash.
Societies	Have been part of IEEE, SPADES and LDS at LUMS.