



# Muhammad Junaid Raza

LUMS, Opposite Sector U, DHA, Lahore, Pakistan

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## OBJECTIVE

I am seeking an opportunity to utilize my skills and experience to advance my career by displaying professional attitude to satisfy my dreams and serve my motherland with excellent interactive and leadership as well as technical and managerial skills.

## EDUCATION

### Lahore University of Management Sciences

June 2014 - June 2018

BS (Electrical Engineering) - **CGPA: 3.20**

*Relevant Courses:* Machine Learning, Linear Algebra, Probability, Network Security, Network Centric Computing, Network Protocols and Performance, Computer Architecture, Computer Vision Fundamentals, Operating Systems

## EXPERIENCE

### Lahore University of Management Sciences (LUMS)

**Student Intern** - Information Systems and Technology (IST) - Computing and Networking

July 2016 – June 2018

IST -Information Systems and Technology- is a department at LUMS that provides students with IT facilities ranging from IT-Labs to fast Internet connections. I decided to work at IST to get an exposure of professional environment and to be able to experience working alongside routine education.

**Teaching Assistant** – MGHSS – Education

Jan 2018 – May 2018

I have served as a teaching assistant at Mushtaq Gurmani School of Humanities and Social Sciences, managing and organizing tutorials and other grading instruments for a class of 40 students.

**Education Ambassador** - NOP Center - Education

June 2016 - July 2016

As an Education Ambassador, my task was to reach out to the young and bright yet financially poor students and inform them about scholarships. A lot of bright students in Pakistan have to stop their study at some point due to lack of financial resources and lack of knowledge of different kinds of scholarships offered across the country. I am still a part of this program and several students got selected from my area.

**Coaching Session IT-Instructor** - NOP Center - Education

June 2016 - July 2016

LUMS conducts a coaching session every year to familiarize A-Level/FSc students with University Life and conducts workshops on communication skill, IT-Introduction etc. Being an IT-Instructor, my task was to guide students about usage of IT facilities.

## PROJECTS

### Smartphone Apps Fingerprinting using Network Traffic

In this project we captured Network Traffic being MITM and analyzed the traffic using Machine Learning to guess the Smartphone Application being used. We built a temporal profile of every user connected to our internet service. This profile is helpful in network security forensics and for providing better services by ISP.

### Decentralizing HVAC using IoT

HVAC systems use lots of power and a complete HVAC system has to be turned on even if only one person is sitting in the building. We brought an idea to replace HVAC by individual AC, Heater, Fan etc. in every office and connecting them together using IoT. This helps control the devices remotely and a synchronous as well as asynchronous operation for whole-building, individual use respectively. This also reduces the monthly power usage by roughly 50%.

### Weather Controlled Home Automation using Microcontroller and Xbee

Simple and low-cost implementation of home automation using Xbees along with sensors. The Xbee sends sensor data to Microcontroller which performs suitable actions after analyzing the data.

### Obstacle Avoiding Robot

I designed a low-cost robotic car that avoids obstacles with help of sensors.

### Edge Avoiding Robot

I designed an edge avoiding robot avoids edges when placed on a table or such surface.

### LFR-Line Following Robot

Line following robot is a low-cost implementation of a robotic car that follows a certain line.

## CERTIFICATIONS/TRAININGS

### **Medical First Responder (MFR), Emergency Medical Services (EMS) - LUMS**

Emergency Medical Services is a student run department at LUMS that provides first aid services to students and faculty at campus. It is a volunteer work and the members work free of cost.

Responsibilities as an MFR include:

- Attending Emergencies whenever needed
- Helping patients save their lives
- Keeping the skill Fresh, by revising the syllabus and techniques
- Acting as First Aid Provider whenever, wherever needed

## HONOURS AND AWARDS

### **Fully Funded Undergraduate Program under LUMS NOP**

**2014-2018**

LUMS provides scholarships to bright and needy students for study. This scholarship is based on the financial need and performance during tests conducted at LUMS. I was one of the 135 students selected out of around 6000 applications. This grant includes full fee waiver, free hostel facility and a living allowance.

### **Summer Research Program Grant**

**2017**

Applied for and successfully received grant for 10 weeks Summer Research Program (SRP)

### **CHIEF MINISTER'S AWARD**

**2017**

Received merit-based Laptop Award from Chief Minister Punjab

## INTERESTS

Data Sciences  
Network Security  
Computer Networks  
Machine Learning  
Computer Architecture

## Languages/Tools

Python  
C++  
Matlab  
Orange

## EXTRA CURRICULAR

Vice President, IEEE-LUMS  
Convener, IEEE-LUMS  
Director of Operations, EMS-LUMS  
Director of Technicals, Dramaline-LUMS