



Rana Abu Bakar

EDUCATION AND TRAINING

01/10/2022 – CURRENT Pisa, Italy

PHD STUDENT Scuola Sant'Anna Pisa

Address Piazza Martiri della Libertà, 33, Pisa, Italy | **Website** <https://www.santannapisa.it/>

30/09/2015 – 05/06/2018 Lahore, Pakistan

MSCS Virtual University of Pakistan

As an M.S student, I developed a particular interest in the machine learning research gaps and limitations which affect large-scale businesses and economic outcomes worldwide. Progressing toward the interest, I have used a machine-learning-based optimized technique to detect DDoS attacks in real-time traffic and mitigated attacks at the initial attack stage by using SNORT-based IPS in my Master's project.

Address Lahore, Pakistan | **Field of study** Computer Science | **Final grade** 3.66/4.0 |

Thesis SMART ROUTING BASED ON DDOS DETECTION WITH INTELLIGENT SURVIVABLE CENTRIC NETWORK AGENT

31/08/2013 – 22/07/2015 Islamabad, Pakistan

MCS Comsats University

In my undergraduate M.C.S, I have studied a broad mixture of science and engineering subjects. Various courses like Artificial Intelligence (Robotics), Programming Languages (C, C++, JAVA, Android, Assembly), Software Engineering, Assembly, Algorithm Analysis and Design, Data Structure, Computer Networks, Computer graphics, and multimedia. Computer Simulation and Modelling gave me an excellent background in the theoretical concept of Computer Science and Engineering.

Address Islamabad, Pakistan | **Field of study** Computer Science | **Final grade** 3.20/4.0 |

National classification 1 | **Number of credits** 72

DIGITAL SKILLS

Proficient in Python, Java, Javascript, C, C++ and some knowledge of Matlab | LINUX / UNIX / MAC OSX / WINDOWS | Kali Linux (network penetration testing) | OMNeT++ | NS2/NS3 Simulator | VMWARE ESXi | Virtualization (VMware vSphere, VMWare vSAN)

LANGUAGE SKILLS

Mother tongue(s): **URDU**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● ADDITIONAL INFORMATION

ONLINE COURSES

31/03/2020 – 30/04/2020

Data Science:Machine learning from Harvard

<https://www.coursera.org/account/accomplishments/certificate/5N422AJ839YQ>

31/12/2018 – 05/12/2019

Machine Learning from Stanford University

Link <https://www.coursera.org/account/accomplishments/certificate/5N422AJ839YQ>

01/12/2019 – 01/04/2020

Information Security: Context and Introduction

Information Security: Context and Introduction course organized by the University of London, Royal Holloway, the University of London at Coursera.

Link <https://www.coursera.org/account/accomplishments/certificate/8BF8E9FL2KBG>

01/09/2019 – 01/11/2019

AI For Everyone

Link <https://www.coursera.org/account/accomplishments/certificate/QNDH8AGV6XPD>

01/08/2019 – 01/11/2019

AWS Fundamentals: Going Cloud-Native

Link <https://www.coursera.org/account/accomplishments/certificate/YBMKYVFKT6F3>

COMMUNICATION AND INTERPERSONAL SKILLS

Communication Skills Good communication skills were gained through my experience as a visiting lecturer and as a presenter at conferences.