



Muhammad Bin Saif

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About me:

I am an early stage researcher with research interest in blockchain, Artificial Intelligence (AI), network security and optimization.

● EDUCATION AND TRAINING

01/09/2019 – 05/06/2022 – Shenyang , China

MASTER OF ENGINEERING IN COMPUTER APPLICATION TECHNOLOGY – Shenyang Aerospace University

- I conducted the research under the supervision of Professor Dr. Liang Zhao (lzhao@sau.edu.cn) and successfully defended my thesis.
- The primary research domain was distributed wireless network security and optimization using blockchain and artificial intelligence.
- Published my first journal article in China Communications in the 3rd semester.
- Developed a lightweight blockchain consensus algorithm for the Internet of Things (IoT).

Thesis: A Study of Secure and Intelligent Routing Scheme for Flying Vehicles

76%

01/10/2013 – 07/10/2017 – Rawalpindi , Pakistan

BACHELORS OF SCIENCE IN COMPUTER SCIENCE – PMAS Arid Agriculture University

- I led a team of 3 members to implement and defend the final year software project.
- The project was an Ecom solution with text mining on customer reviews developed in ASP.NET MVC and was among the top selected projects to be presented at the Open House job fair.

Thesis: Product Review Web Application

61.28%

● WORK EXPERIENCE

01/07/2022 – CURRENT – Lahore, Pakistan

RESEARCH ASSOCIATE – NCCS FUNDED BLOCKCHAIN LAB, INFORMATION TECHNOLOGY UNIVERSITY

I am currently working on blockchain scalability for its large-scale adaptation and blockchain solutions for a transparent supply chain of life-saving drugs. The major responsibilities are:

- Build blockchain-based solutions and perform experiments
- Test and verify experimental results on benchmarks
- Publish results in conferences and journals

<http://blockchain.itu.edu.pk/blockchainold/>

01/09/2019 – 05/06/2022 – China

GRADUATE RESEARCHER – LAB OF NETWORK COMMUNICATION, SHENYANG AEROSPACE UNIVERSITY

- Worked in the Lab of Network Communication under the supervision of Professor Dr. Liang Zhao.

- Conducted experiments on the network simulator (NS3) to simulate and optimize distributed wireless networks (FANET and VANET).
- Implemented the Artificial Intelligence (AI) based algorithms in MATLAB for distributed network optimization.
- Developed blockchain-based proof-of-concept prototypes for distributed wireless networks.
- Developed a lightweight distributed consensus algorithm for resource-constrained IoT devices and successfully integrated AI into an energy-efficient blockchain.
- Currently, working on secure blockchain offloading approaches in MEC-enabled UAVs as a volunteer (learning EdgeCloudSim and SimBlock).

lzhao@sau.edu.cn

10/11/2020 – 15/05/2021 – Islamabad, Pakistan

TECHNICAL PROJECT ASSISTANT – VISION BOTIX

I mainly worked on the Smart Farm project to automate the dairy farm using sensors and Machine Learning (ML) techniques. The responsibilities were:

- To analyze the user requirements and plan deliverables accordingly.
- To identify weaknesses and risks in existing projects and recommend improvements (ASP.NET Core, Angular).
- To work closely with the Team Lead to determine the roles and responsibilities of team members required for specific projects.

sumair.rasool@visionbotix.com | <https://visionbotix.com/>

01/07/2018 – 01/06/2019 – Istanbul, Turkey

REMOTE WEB DEVELOPER – SISTEMBUL

I worked as a remote full-stack web developer and my major responsibilities were:

- To design, develop and revamp websites in ASP.NET MVC, jQuery, Angular Ant Design, HTML, CSS and SQL.
- To integrate payment gateway and google analytics in websites.
- To manage a team of 2 members (Front-end developer and designer).
- To investigate the errors and develop fixes on existing ASP.NET MVC websites.
- To analyze the usability and performance, and recommend changes to improve the user experience.

iletisim@sistembul.com | <https://www.sistembul.com/>

01/03/2016 – 28/02/2018 – Rawalpindi, Pakistan

SOFTWARE ENGINEER – GROUPER LOGIC

I experienced the complete Software Development Lifecycle (SDLC) from requirements analysis to enterprise-wide deployment and was involved in all aspects of the Application Lifecycle Management (ALM). The major responsibilities were:

- To perform testing, troubleshooting and debugging mainly in ASP. NET MVC and Core for fast-paced software development.
- To develop, maintain and monitor websites using ASP.NET MVC, jQuery, HTML, CSS and SQL.
- To develop coding standards, software designs and architecture patterns for projects. I designed system architecture for migration projects.
- To analyze the development process and made recommendations for streamlining and alternative approaches.

info@grouperlogic.com

● PUBLICATIONS

L. Zhao, M. B. Saif, A. Hawbani, G. Min, S. Peng and N. Lin, "A novel improved artificial bee colony and blockchain-based secure clustering routing scheme for FANET," in China Communications, vol. 18, no. 7, pp. 103-116, July 2021, doi: 10.23919/JCC.2021.07.009.

<https://ieeexplore.ieee.org/document/9495358/> – 2021

● CONFERENCES AND SEMINARS

IEEE

- AI Standards: Ethical Consideration and Best Practices When Implementing AI in Your Organization
- Virtual Tech Talk: IEEE 802 Networking Standards – 802.11 Wireless LAN Standards
- Virtual Tech Talk: IEEE 802 Networking Standards – WLAN Sensing
- Guide to Autonomous Vehicle Technology Virtual Event
- Virtual Tech Talk, The Future of Electric Transportation: Targets, Plans and Actions

● CERTIFICATIONS

Corvit & PSEB

- Blockchain Specialization

Cisco Networking Academy

- Introduction to Cybersecurity
- Cybersecurity Essentials
- Networking Essentials
- Programming Essentials in Python
- Introduction to Internet of Things

● SKILLS

Programming Skills

C++ | C# | Python | Java | Javascript | Solidity

Research Softwares and Skills

Network Simulator (NS3) | MATLAB | EdgeCloudSim | SimBlock (Learning) | Docker Swarm | Wireless Networks | Distributed Systems | Artificial Intelligence | Machine Learning | Cyber Security | Smart Contracts | Internet of Things | Blockchain

Version Control and OS

Linux (Ubuntu) | Git

Software Development Skills

ASP.NET MVC 5, ASP.NET Core | Web services & web APIs | DApps (Ethereum Network) | Angular.js Framework | Database Management (MS Access, SQL)

Soft Skills

Team Management | Project Management | Independent Research Management | Manuscript Writing | Research Report Writing | Presentation

LANGUAGE SKILLS

Mother tongue(s): **URDU**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH (IELTS 7.0)	C1	C2	C1	C1	B2
CHINESE	B1	A2	B1	B1	A2
UKRAINIAN	B1	A2	B1	B1	A2

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

HONOURS AND AWARDS

01/09/2019

Chinese Government Scholarship – Chinese Scholarship Council (CSC)

My complete master's of engineering degree was under the CSC scholarship. It was a fully funded scholarship with 3000 RMB of a monthly award for 3 years.

EXTRA CURRICULAR ACTIVITIES

Hobbies

- Travel and Travelling Guide
- Exploring Cultures
- Mentoring Students

Affiliations

I am an active member of the Layyain Student Organization (LSO) and served as students coordinator from May 2015 to May 2016. Major activities were mentoring newly admitted students, conducting culture awareness seminars and career counseling of students, particularly from the South Punjab region.

RECOMMENDATIONS

Dr. Liang Zhao – Professor – lzhao@sau.edu.cn

School of Computer Science, Shenyang Aerospace University, Shenyang, China

Dr. Dong Yanju – Associate Professor – dongyanju@sau.edu.cn

School of Computer Science, Shenyang Aerospace University, Shenyang, China