

# Muhammad Zain

Karachi, Pakistan

**Email:** mzainjed@gmail.com **Phone:** (+92) 331 347 1072 **LinkedIn:** linkedin.com/in/mzainxo

---

## OBJECTIVE

Final-year Software Engineering student with a strong academic and practical background in machine learning, cybersecurity, and intelligent system design. Deeply interested in advancing the reliability and safety of AI-driven systems through real-time decision-making frameworks and resilient architectures. Seeking a research opportunity at KAUST to contribute to the development of secure, adaptive, and time-aware intelligent systems for safety-critical applications.

## EDUCATION

**Bachelors of Software Engineering** (September 2021 – Expected July 2025)  
Bahria University CGPA: 3.72  
Karachi, Pakistan

- **Final Year Project Title:** Intelligent Cyber Attacks Detection System (ICADS)
- **Relevant Coursework:** Machine Learning, Natural Language Processing, Information Security, Embedded Systems, Data Encryption, Data Mining, Data Science, Cloud Computing, Operating Systems, Software Design & Architecture, Data Structures & Algorithms.

**Higher Secondary School Certificate (Pre-Engineering)** (July 2019 – August 2021)  
Aga Khan Higher Secondary School Grade: A+  
Karachi, Pakistan

**Secondary School Certificate (Science Group)** (August 2016 – May 2019)  
Pakistan International School Grade: A  
Jeddah, Saudi Arabia

## PROFESSIONAL EXPERIENCE

**Full Stack Developer Intern** (October 2023 – November 2023)  
NexinIT  
Karachi, Pakistan

## ACADEMIC PROJECTS

**Intelligent Cyber Attacks Detection System (ICADS)** (October 2024 – June 2025)  
Final Year Design Project (FYDP)

- Integrated ML-based anomaly detection with Suricata IDS for detecting sophisticated DDoS attacks.
- Resolved static signature limitations by embedding adaptive learning, reducing dependence on manual rule updates.

**Realtime Phishing Email Detection System** (November 2024 – December 2024)

- A Built a web-based phishing detector using TF-IDF and Random Forest Classifier.
- Introduced contextual, feature-driven ML detection to outperform traditional spam filters.

**Sun Tracking Solar System using Arduino and LDR** (December 2023 – January 2024)

- Engineered a prototype solar panel system using Arduino and servo motors to optimize energy capture through continuous sunlight alignment.

### **Driver Drowsiness Detection System**

(December 2023 – January 2024)

- Developed a real-time drowsiness detection system using Computer Vision (OpenCV, Keras) and CNNs to prevent fatigue-induced accidents.

### **Don't Blink Game**

(November 2024 – December 2024)

- Android app using Google Vision API for eye-tracking gameplay (Java, Firebase).

### **Enterprise Network Design of Dubai Airports**

(December 2023 – January 2024)

- Designed a scalable, secure network with VLANs, ACLs, EIGRP, and DHCP using Cisco Packet Tracer.

### **Vehicle Trading System**

(May 2023 – June 2023)

- C# Windows Forms application with SQL Server backend; implemented Singleton and Decorator design patterns.

### **Labyrinth Maze Game**

(January 2023 – February 2023)

- Maze navigation game developed with C# using the A\* algorithm and dynamic file-based level generation.

## **CERTIFICATIONS**

### **IBM Application Security for Developers and DevOps Professionals**

(March 2025)

Coursera

### **Certified in Cybersecurity (CC)**

(February 2025 – February 2028)

ISC2

### **Google Cybersecurity Professional Certificate**

(February 2024)

Coursera

### **Japanese 5S Methodology Training**

(December 2020)

Toyota x UNAP

## **VOLUNTEER WORK**

### **Marketing and Creative Lead (Farewell)**

(March 2024 – May 2024)

Software Engineering Dept., Bahria University

Karachi, Pakistan

### **Volunteer at Heatwave Relief Camps**

(May 2022)

Faizan Global Relief Foundation (FGRF)

Karachi, Pakistan

## **SKILLS**

- **Programming & Scripting:** Python, Java, C#, C, SQL, Bash, Assembly, HTML, CSS, XML, JavaScript, Git.
- **Tools:** Suricata, Wireshark, Tcpdump, ASP.NET, Streamlit, Unity, MS Office, Cisco Packet Tracer, Postman, Jira, Trello.
- **Platforms:** Windows, Linux, VMware, Azure, AWS, GitHub, Visual Studio, Android Studio, VS Code, Google Colaboratory.
- **Concepts:** Neural Networks, Deep learning, Computer Vision, NLP, IDS/IPS, Incident Response.
- **Soft Skills:** Communication, Problem Solving, Presentation, Team Leadership, Documentation, Presentation, Agile & Scrum, Kanban, Lean Management.
- **Hardware & Lab Skills:** Basic electrical wiring, power tools operation, Drilling, Hardware Assembly and troubleshooting.

## AWARDS & RECOGNITIONS

**Provisional Merit Scholarship**  
Bahria University

(Semester: Spring 2025)  
2<sup>nd</sup> Position

### **International Challenge on Informatics and Computational Thinking**

14<sup>th</sup> International Bebras Informatics Contest 2019

(29<sup>th</sup> position out of 233 – PAKISTAN)

### **International Kangaroo Linguistics Contest**

16<sup>th</sup> Edition, 2019

(94<sup>th</sup> position out of 1314 – PAKISTAN)

## LANGUAGES

- **Urdu:** Native
- **English:** Full professional proficiency
- **Arabic:** Basic proficiency

## REFERENCES

**1. Dr. Osama Rehman**

Senior Associate Professor, Bahria University  
[osamahussain.bukc@bahria.edu.pk](mailto:osamahussain.bukc@bahria.edu.pk)

**2. Dr. Hina Shakir**

Associate Professor, Head of Department SE, Bahria University  
[hinashakir.bukc@bahria.edu.pk](mailto:hinashakir.bukc@bahria.edu.pk)

**3. Dr. Qamaruddin Memon**

Senior Associate Professor, Bahria University  
[qamaruddin.bukc@bahria.edu.pk](mailto:qamaruddin.bukc@bahria.edu.pk)