

Muhammad Zain

Undergraduate Software Engineer

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OBJECTIVE

Final-year Software Engineering student with a strong academic and practical background in machine learning, .NET, 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. Eager to contribute to the development of secure, adaptive, and time-aware intelligent systems for safety-critical applications, learn from industry experts, and apply my adaptability and quick learning abilities in a dynamic environment.

ACADEMIC PROJECTS

Intelligent Cyber Attacks Detection System – Final Year Project

OCTOBER 2024 – IN PROGRESS – github.com/mzainxo/ICADS

- 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 Emails Detection System – Web Application

NOV 2024 – DEC 2024 – github.com/mzainxo/Phishing-email-detection-using-ML-and-NLP

- 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.

Don't Blink Game – Android App

MAY 2024 – JUNE 2024 – github.com/mzainxo/Dont-Blink-Game-Android

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

Enterprise Network Design of Dubai Airports – Packet Tracer

DECEMBER 2023 – JANUARY 2024 – github.com/mzainxo/Network-Design-for-Airport

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

Driver Drowsiness Detection System

DECEMBER 2023 – JANUARY 2024 – github.com/mzainxo/Driver-Drowsiness-Detection-System

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

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.

Vehicle Trading System – Windows Forms App

MAY 2023 – JUNE 2023 – github.com/mzainxo/VehicleTradingSystem

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

Labyrinth Maze Game (Maze Rush) – Windows Forms App

JAN 2023 – FEB 2023 – github.com/mzainxo/MazeRush

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

EXPERIENCE

Full Stack Developer (Internship) – NexinIT

OCTOBER 2023 - NOVEMBER 2023

- Utilizing ASP.NET MVC, Entity Framework, SQL Server, HTML/CSS, jQuery, AJAX, JavaScript, Postman, MS Azure, Bootstrap, Razor, Select2, GitHub, REST API

EDUCATION

Bachelors of Software Engineering – *Bahria University*

OCTOBER 2021 - JULY 2025 • CGPA: 3.72

- **Relevant Coursework:** OOP, Database Management Systems, Cloud Computing, Data Structures & Algorithms, OS, User Interaction, Natural Language Processing, Data Mining, Data Science, Mobile App Dev., Information Security, Accounting & Finance, Software Project Management, Web Engineering, Computer Networks, Design and Analysis of Algorithms, Computer Programming, Software Design & Architecture, Computer Architecture & Logic Design.
- **Granted Provisional Merit Scholarship for Spring 2025 Semester.**

SKILLS & TOOLS

- Machine Learning, Natural Language Processing.
- C#, Java, Python, C, Bash, Assembly, and SQL.
- HTML, CSS, JavaScript, and XML.
- Suricata, Tcpdump, Wireshark, Burp Suite, VMware
- Cisco Packet Tracer, Linux.
- RESTful APIs, Postman.
- GitHub, AWS, Azure.
- Jira, Trello, Documentation.
- Agile, Scrum, Lean & Kanban Methodologies.
- Risk Management.
- SPLC and SDLC.
- Leadership, Problem Solving, Teamwork, Decision Making.
- Project planning.
- Project monitoring, and control.
- Communication & Presentation.
- Incidence Response.

CERTIFICATIONS

IBM Application Security for Developers and DevOps Professionals – *Coursera*

MARCH 2025

Certified in Cybersecurity (CC) – *ISC2*

FEBRUARY 2025 – FEBRUARY 2028

Google Cybersecurity Professional Certificate – *Coursera*

FEBRUARY 2024

Japanese 5S Methodology Training – *Toyota x UNAP*

DECEMBER 2020

VOLUNTEERING

Marketing and Creative Lead (Farewell) – *Software Engineering Dept., Bahria University*

MARCH 2024 – MAY 2024

Volunteer at Heatwave Relief Camps – *FGRF*

MAY 2022