Muhammad Bassam Khan

Cybersecurity Engineer with a passion for Machine Learning and Pentesting

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github.com/MasterChief220

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Skills

Programming

Pandas, Web Scraping, Numpy, Web Automation, Scikit, Python, Bash, MySQL, C++, Microcontroller Programming

Machine Learning

Regression, Q Learning, Classification, Tensorflow, OpenCV

Pentesting

Nmap, Wireshark, Burp Suite, Traceroute, Metasploit

Engineering

AutoCAD, LabVIEW, Matlab, Proteus, Rslogix

Certifications

Google Cybersecurity Certificate Coursera

Junior Penetration Testing Pathway TryHackMe

TTYTTACKITC

Python, Bash and SQL Essentials for Data Engineering

Coursera

Developing Front-End Apps with React

Coursera

Introduction to Quantum Computing Udemy

Reverse Engineering .NET for Beginners (Visual Basic)

Udemy

Supervised Machine Learning: Regression and Classification

Coursera

Ethical Hacking Essentials (EHE)

EC-Council

Introduction to Bash Shell Scripting

Coursera

IOSH-UK

Safecon

Education

NUST September 2020- June 2024

Mechatronics Engineering

Nixor College August 2018- June 2020

Pre-Engineering

Experience

NRTC

September 2024- Present

Assistant Executive Engineer Cybersecurity

 Manage and configure Security Information and Event Management (SIEM) tools to monitor and analyze security threats in real-time.

- Deploy and integrate Network Detection and Response (NDR) systems to detect anomalous activities and enhance network visibility.
- Implement Endpoint Detection and Response (EDR) solutions to provide advanced endpoint security, identifying and mitigating potential threats on enduser devices.

Lucky Power- Harbin Electric

July 2024- August 2024

Internee

Karachi

Alevels

Islamabad

- Worked on coal handling, flue gas desulfurization, water treatment, and boiler turbine gas systems, including ultra-supercritical pulverized type boilers.
- Conducted inspections and prepared reports on equipment such as bunkers, feeders, mills, fans, CO2 tanks, and water pumps.
- Performed chemical testing of water samples (e.g., iron content, pH, turbidity) and monitored cooling water system vibrations.
- Gained experience controlling operational equipment (valves, pumps, etc.) from the main control room.

Fauji Foundation Head office

September 2023- October

Networking/Cybersecurity Intern

Rawalpindi

- Acquired an in-depth understanding of the OSI model and its seven layers.
- Designed and simulated networks using Packet Tracer, configuring over 20 switches and routers, implementing VLANs, trunking lines, and STP.
- Demonstrated expertise in subnetting, network segmentation, and prioritizing cybersecurity in network design.
- Proficiently utilized packet analysis tools such as Wireshark and network scanning tools like Nmap, Traceroute to identify and close open ports.

Projects

Automated Bimanual Mixology System (ABMS)

June 2024

FYP NUST

- Developed automated beverage preparation system with dual-armed robots.
- Enhanced precision with computer vision for arm position tracking along with Reinforcement Learning.
- Utilized 3D-printed arms and ESP-32 for system operations.

Computer Vision Car Counter

May 2023

NUST Project

Github

- Detected cars in a video frame and counted them using Image Processing using a pre-trained Haar Cascade Classifier.
- Employed a pre-trained Haar Cascade Classifier to accurately detect cars in video frames, achieving a detection accuracy of over 90%.
- Processed video footage at an average rate of 30 frames per second, ensuring real-time detection and counting.