SHOUZAB KHAN

DevOps Engineer | AWS | Software Engineer

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EDUCATION

University of Alabama at Birmingham • Birmingham, AL   *Jan 2023 – Dec 2024*

Master of Science in Computer Science

Concentration in Cyber Security

National University of Computer and Emerging Sciences • Pakistan   *Aug 2017 – Dec 2021*

Bachelor of Science in Computer Science

WORK EXPERIENCE

University of Alabama at Birmingham • **Birmingham, AL**   *May 2023 – Aug 2023*

Department of Computer Science – Teaching Assistant

- Collaborated with teachers to plan and execute lesson plans, ensuring alignment with curriculum standards.
- Provided students with individual and small group support, reinforcing learning objectives.
- Assisted around 80 students in developing educational materials to support diverse learning styles.
- Shadowing the professor for different lectures and problems faced by students.
- I used various technological tools: Microsoft Teams for communication, Wireshark for networking, and Cisco Packet Tracer.

Systems Limited • **Pakistan**   *July 2022 – Dec 2022*

Cloud and Infrastructure L1 Support

- Provided Level 1 (L1) support for Cloud Infrastructure
- Conducted in-depth troubleshooting and technical issue resolution.
- Collaborated with cross-functional teams to ensure optimal performance and reliability of cloud-based systems.
- Worked on different tools like ServiceNow, Jira Service Desk for ticketing purposes, Microsoft Teams for communications, and AWS Inspector for security.

Cloud and Infrastructure Intern

- Assisted in deploying and maintaining cloud infrastructure services, gaining hands-on experience with AWS.
- Supported configuring and optimizing virtual machines, storage solutions, and networking components within a cloud environment.
- Doing Research for learning new technologies or suggesting any improvements in the current software's.
- Collaborated with senior team members to implement security best practices and ensure compliance with industry standards in Cloud configurations.
- Making Tickets for daily tasks for the whole group and then keeping an eye on each one of the tickets, also conducting the daily scrums for the team.

SoftStack Technology • **Pakistan**   *Dec 2021 – June 2022*

Junior Developer

- Coded, Tested, and Debugged Software applications using Python.
- Collaborate with senior developers, project managers, and team members to understand project requirements and contribute to development efforts.
- Assisting the IT staff for their problems and helping them with their problems.
- Upgraded all their old systems with new and exploring troubleshooting methods.
- Continuously Learned and Enhanced technical skills, staying in touch with industry trends, best practices, best Algorithms and Data Structures.

PUBLICATIONS

Iqabal, M., Shafiq, M. U., **Khan, S.,** Ullah, O., Ali, Y., & Ullah, Z. (2024). Efficient Resource Utilization Through Multi-Queue Adaptive Priority Scheduling in real-time systems. MDPI. (Expected Online – Fall 2024)

ACADEMIC PROJECTS

AerialAce Drone Project   *Jan 2024*

Software Engineering

- My role in this project was to manage the drone side programming i.e. connecting the drone and programming the LED lights with python.
- Programmed drones to perform predetermined shapes with LED lights, facilitating mesmerizing aerial displays.
- I suggested which shapes can we draw in Sky and what will be the movements of the drone.
- I also coordinated with the project timeline and technical approach, so we delivered the project in time and in our budget constraints.

Uncovering Crypto Scams   *Dec 2023*

Computer Forensics

- Conducted an in-depth project on uncovering Cryptocurrency Scams in the computer forensics class, showcasing proficiency in Blockchain Technology, Cryptocurrency Forensics Tools, and Data Analysis techniques.
- Applied investigative skills to trace suspicious transactions, presented findings through comprehensive reports, and stayed current on evolving security risks and regulatory standards in the cryptocurrency landscape.
- Checked thousands of Scam Websites, URLs, Emails, Text Messages, Calls, and much more.

Socket Programming   *March 2023*

Networking

- Designed and implemented a Socket Programming project for a networking class.
- Demonstrated proficiency in TCP/IP Communication, Client-Server architecture, and Remote Communication between a student and a robot using Python.
- I used the Socket Package for this Project.

Breaking The Captcha   *April 2023*

Foundation Of Data Science

- Conducted an experiment for Breaking the Captcha and downloaded hundreds of images for training purposes.
- I trained hundreds of Captcha Images on my model.
- For training purposes, I used Deep Convolutional Neural Networks.
- Each Letter in the images was treated as a single image for the Neural Network.
- Identifying a Single Letter was easier than the whole image.
- The accuracy for this was around 97 percent.

Water Pollution Detection Through Hyperspectral Images   *Dec 2021*

Capstone Project

- Led a Capstone project focused on Water Pollution Detection Through Hyperspectral Images.
- Utilizing advanced Image Processing Techniques and Machine Learning Algorithms (Implemented with TensorFlow).
- Environmental Monitoring Principles to analyze and visualize pollution patterns (Implemented with matplotlib, Seaborn, scikit-learn).
- The project involved Mapping or Spatial Analysis; mention any experience with GIS Tools or Software (Implemented with Geopandas, Folium).

Network Monitoring System   *Jan 2021*

Computer Networks

- Developed a comprehensive Network Monitoring System as part of the computer networks class, showcasing proficiency in network protocols, monitoring tools (such as Wireshark), Packet Analysis, Traffic Management, and Security Monitoring.
- Implemented Automated Alerting systems and user-friendly dashboards for efficient network administration.

Mobile Phone Directory   *Aug 2021*
Data Structures & Algorithms

- Aimed to create an efficient system for storing and managing contact information.
- Utilized Data Structures:
- Linked List: Stored individual contact entries, each node representing a contact with name, phone number, and additional information.
- Hash Table: Indexed contacts by name for fast retrieval.
- Binary Search Tree (BST): Maintained sorted order of contacts based on phone numbers, enabling quick retrieval and range queries.

SUMMARY OF QUALIFICATIONS

- **CERTIFICATION:** AWS Certified Cloud Practitioner.   *Expected May 2024*

- **TECHNICAL SKILLS:** Algorithms, Data Structures, Programming, Problem-Solving Skills, Binary Tress, Lists, Link lists, Dictionaries, J Unit Testing, Networking Monitoring, Docker, Modern Cryptography, Identity and Access Management (IAM), Cloud Security, Microsoft 365, Lightweight Directory Access Protocol, Amazon Web Services, IT User Access, SharePoint, GitHub, Project Management, PC hardware and software troubleshooting, Microsoft Word and Excel,

- **PERSONAL SKILLS:** Deep thinker, Learn New Technologies, working in groups, initiative taker, Good communication, Problem Solving, Critical Thinking, Work Independently.

- **LANGUAGE & PACKAGES:** Python, C++, Java, R, TensorFlow, Ascon, Socket, Threading, Pandas, NumPy, SkLearn, Seaborn, Keras, Matplotlib, Scikit-Learn, DJITelloPy API.

EXTRA-CURRICULAR ACTIVITIES

Golden Key International Honor Society   *Aug 2023 – Present*
General Member

- In this organization, my primary objective is to guide students in discovering their career paths, refining their interview skills, and excelling academically. I provide comprehensive support through career counseling sessions and mentorship opportunities. Additionally, I organize informative talks by guest speakers from across the country, covering various topics related to emerging technologies and industry trends. I aim to empower students and facilitate their professional growth and development by offering these resources and opportunities.

Pakistani Students Association at UAB   *Aug 2023 – Present*
International Liaison Chair

- As an active PSA (Pakistani Student Association) member, I proudly represented my culture and country at UAB (University of Alabama at Birmingham). Additionally, I was crucial in welcoming and assisting new students arriving in the USA and providing support with their living arrangements, academic pursuits, and daily routines. This experience significantly enhanced my personal skills, communication abilities, and networking proficiency. Furthermore, I organized various workshops and events focusing on technology and our home country's cultural celebrations, fostering a sense of community, and enriching the university experience for all students.

Association for Computing Machinery   *Aug 2017 – May 2021*
General Member -> General Body -> General Secretary

- As an active member of the ACM chapter at my college, I've had the privilege of engaging in various co-curricular activities that cater to the holistic development of students. ACM has provided exceptional opportunities for networking and skill development. I have organized workshops on cutting-edge frameworks like Flutter and hosted talks on emerging technologies like NLP, AI, and ChatGPT. Beyond technical pursuits, our chapter is dedicated to promoting environmental welfare and advocating for the well-being of our peers and the college community.