**SHOUZAB KHAN**

Data Science | AWS | Software Engineer

734-837-8741 | [skhan6@uab.edu](mailto:skhan6@uab.edu) | [LinkedIn-shouzab-khan](https://www.linkedin.com/in/shouzab-khan) | [Github-Shouzabkhan](https://github.com/Shouzabkhan)

**EDUCATION**

[**University of Alabama at Birmingham**](https://www.uab.edu/home/)• Birmingham, AL    ***Jan 2023 – Dec 2024*** Master of Science in Computer Science

*Concentration in Data Science*

[**National University of Computer and Emerging Sciences**](https://www.nu.edu.pk/)• Pakistan    ***Aug 2017 – Dec 2021*** Bachelor of Science in Computer Science

**CERTIFICATION**

* AWS Certified Cloud Practitioner
  + VALIDATION NUMBER: [04d9e4e9947546b2b9d528a5f7a02a71](https://cp.certmetrics.com/amazon/en/public/verify/credential)
* Data Cleaning in Python
  + VALIDATION URL: [ude.my/UC-ed08cfd5-249b-4f7a-861a-0092cf7b73d3](file:///Users/shouzabkhan/Documents/resumes/ude.my/UC-ed08cfd5-249b-4f7a-861a-0092cf7b73d3)

**PUBLICATIONS**

* Ijaz, A., Khan, A. A., Arslan, M., Tanzil, A., Javed, A., Khalid, M. A. U., & Khan, S. (2024). Innovative machine learning techniques for malware detection. Journal of Computing & Biomedical Informatics. <https://jcbi.org/index.php/Main/article/view/508>
* Awan, I. A., Sumra, I. A., Mahmood, K., Mujahid, M. A., Khan, S., & Zaman, M. I. (2024, June 3). *A reliable approach for data security framework in Cloud Computing Network*. Migration Letters. <https://migrationletters.com/index.php/ml/article/view/10835>.
* Iqbal M, Shafiq MU, Khan S, Obaidullah, Alahmari S, Ullah Z. 2024. Enhancing task execution: a dual-layer approach with multi-queue adaptive priority scheduling. PeerJ Computer Science 10:e2531 <https://doi.org/10.7717/peerj-cs.2531>
* Iqra Ibraheem, Sadaqat Ali Ramay, Tahir Abbas, Rizwan ul Hassan, & Shouzab Khan. (2024). Identification of Skin Cancer Using Machine Learning. Journal of Computing & Biomedical Informatics, 7(02). Retrieved from <https://jcbi.org/index.php/Main/article/view/627>

**WORK EXPERIENCE**

[**Alabama Public Television**](https://aptv.org/) **• Birmingham, AL *May 2024 – To Date***

***Intern Information Technology***

* Upgrading the Accounting Infrastructure from Macola 7.1 to Macola 10.
* Working and Installing Cisco IR 1836 Router SD WANs for Engineering Teams.
* Converting the infrastructure from AnyDesk to HP AnyWare.
* Reimaging several PCs from different offices and giving them static IP or turning them on DHCP.
* Remapping around 150 IP addresses across the whole state to setup whole new network for channel 10.
* Working of Microsoft Dynamics 365 with different modules for finance, HR and Engineering teams and making documentation for each module.
* Helping different clients and users over phone to resolve their problems. Helping them with the technology they using while being remote or any other place.
* Worked with Radio Frequency and Microwaves Systems.
* Finding and Communicating with different vendors for ordering systems and devices.

[**University of Alabama at Birmingham**](https://www.uab.edu/home/) **• 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.
* Worked on different projects on tight due dates.
* I used various technological tools: Microsoft Teams for communication, Wireshark for networking, and Cisco Packet Tracer.

[**Systems Limited**](https://www.systemsltd.com/PK) **• Pakistan *July 2022 – Dec 2022***

***Cloud and Infrastructure L1 Support***

* Provided Level 1 (L1) support for Cloud Infrastructure.
* Analysis of different cloud systems and Gathering data for research.
* Conducted in-depth troubleshooting and technical issue resolution.
* Collaborated with cross-functional teams to ensure optimal performance and reliability of cloud-based systems.

***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.
* 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**](https://softstack.com.pk/) **• 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.
* Reviewing Code written by other team members.
* Continuously Learned and Enhanced technical skills, staying in touch with industry trends, Machine Learning, and different Libraries.

**ACADEMIC PROJECTS**

[**AerialAce Drone Project**](https://github.com/akesserwani/CS420) ***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 we could draw in the Sky and what will be the movements of the drone.
* I also coordinated the project timeline and technical approach so we delivered the project on time and within our budget constraints.

[**Socket Programming**](https://github.com/Shouzabkhan/MS-Networking/blob/main/student.py) ***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**](https://github.com/Shouzabkhan/MS-Foundation-of-data-Science/blob/main/assignment2_skhan6.ipynb) ***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.
* Collected around 1500 different images.
* 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**](https://github.com/Shouzabkhan/Thesis) ***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).
* Collected large datasets of satellite images for training purposes.
* 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**](https://github.com/Shouzabkhan) ***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**](https://github.com/Shouzabkhan) ***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**

* **TECHNICAL SKILLS:** Algorithms, Data Structures, Programming, Problem-Solving Skills, Binary Tress, Lists, Link lists, Dictionaries, J Unit Testing, Networking Monitoring, Cisco switches and Routers, Docker, SharePoint, GitHub, Git, Project Management, PC hardware and software troubleshooting, Microsoft Word, Microsoft Dynamics 365, SD-WAN, writing Scripts and Documentations and Excel, Radio Frequency, Microwaves Systems, Network updates, Maintenance of Broadcasting, LOC,
* **PERSONAL SKILLS:** Deep thinker learns new Technologies, work in groups, initiative taker, good Communication, Problem-Solving, Critical Thinking, Curiosity for new things, works independently, Time Manageable.
* **LANGUAGE & PACKAGES:** Python, C++, Java, R, TKinter, TensorFlow, Ascon, Socket, Threading, Pandas, NumPy, SkLearn, Seaborn, Keras, Matplotlib, Scikit-Learn, DJITelloPy API.

**EXTRA-CURRICULAR ACTIVITIES**

[**Golden Key International Honor Society**](https://www.goldenkey.org/) ***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.

[**Pakistani Students Association at UAB**](https://uab.campuslabs.com/engage/organization/psa) ***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. 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**](https://www.acm.org/) ***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.