MD Rafsun Sheikh

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Career Summary:

- Started **Doctor of Philosophy** in Business Systems and Analytics at the University of Newcastle. My Research area comprises **Artificial Intelligence**, **Decentralized technology (Blockchain)**, and **Cyber security** in **FinTech**.
- Worked as Captain at **Bangladesh Army** & have **o9 years** of experience in the field of CSE, Teaching Methodologies, R&D, Presentation, Stakeholder Management, Admin, Cyber Security Systems, Fraud Detection Technology, Reporting, Documentation, Teamwork, strategic planning & execution.
- Experienced Military professional passionate about Project Management, Automation, Technical Process Analysis & Evaluation, Research, Innovation, curriculum analysis, IT System Management, Networking, Design & Development, Global Education System, QC, and Latest Technical Analysis & Methodology.

Key Proficiencies:

- Machine Learning
- Data Analysis
- Artificial Intelligence
- Neural Networks
- Research Methodology
- Python Programming
- Digital Payments Systems

- Cloud Computing:
- Project Management:
- Biometric Authentication
- Blockchain Technology
- Generative AI
- Teaching and Mentoring
- Technical Leadership

Academic Qualification:

- Doctor of Philosophy in Business Systems and Analytics (Ongoing) from Newcastle Business School, The University of Newcastle, Started in December 2024.
- B.Sc. in Computer Science and Engineering from Military Institute of Science and Technology with a CGPA of 3.47 out of 4 in 2022.

Intern, IPvision Canada Inc (Feb'21 to Mar'21)

- Participated in the development of RingID, a social media platform.
- Testing and debugging during software development and user interface design.

Publications:

- "An Efficient Transfer Learning Model for Predicting Forged (Handwritten) Signature," Co-authored with Professor Nazrul Islam Khan, Published in the 2021 International Conference on Computer, Communication, Chemical, Materials and Electronic Engineering (IC4ME2), Rajshahi, Bangladesh.
- "Five Significant Issues of Digital Payment Systems A Content Analysis", Co-authored with Professor Shah Jahan Miah, and Peter Cook Manuscript was submitted for publication.
- 'Towards Designing an Intelligent Quantification: Al-Driven Automation for Assessing Global University Ranking' Co-authored with Professor Shah Jahan Miah, Manuscript submitted for publication.

Courses/Certification:

- Signals Officers Basic Course from Signal Training Center and School, Bangladesh Army Grade 73%
- Cisco Certification: Cyber Security | 4 months
- Stanford University Course: Machine Learning | 4 Months
- Google Training: Managing Machine Learning Projects with Google Cloud | 2 months
- Amnesty International Training: Digital Security and Human Rights | 1
- Fortinet Certification: NSE 1 Network Security Associate | 2.5 months
- Fortinet Certification: NSE 2 Network Security Associate | 3 months
- DeepLearning.AI Course: Generative AI with Large Language Models | 2
- Kiron.pro Course: Python for Data Science | 3 months
- Cognitive Class Course: Data Analysis with Python | 2 months
- Industrial Training, IPvision Canada Inc. in 2021.

IT Projects:

- THE-WUR World University Ranking Application, Times Higher Education World University Ranking Web application
- Ptmodels, An open-source Python Package for machine learning Image Classification Task
- Army Command Management System (ACMS), An advanced system for real-time monitoring of military movements and strategic operation
- Digidak, A comprehensive military digital correspondence system
- Ask-Uni, A Generative AI chatbot Web-application
- Signature Fraud Detection, Signature forgery detection system for Banking Sectors
- Artificial Intelligence (AI) Surveillance System, Hardware-integrated surveillance structure
- Fraud Guard, An AI system for detecting fraudulent transactions in real-time., 2024
- E-Commerce Payment Hub, Empowering e-commerce with versatile & secure payment solutions, 2023
- Crypto Pay Gateway, Blockchain-Based Cryptocurrency Payment Gateway, 2023
- Bio Wallet, Digital wallet utilizing biometric authentication for enhanced user security and seamless payment integration, 2022

Job Experience:

Captain, Bangladesh Army
Lieutenant
10 Signal Battalion (Acting Company Commander)
7 Signal Battalion
Division IT Officer (Additional Appointment)

Dec '20 to Mar'24 Dec '18 to Dec '20 March '24 to March '24 Dec'18 to Mar'24 Aug '23 to April '24

- **Directed Large-Scale IP Network Deployments:** Led the strategic planning & execution of IP network deployments at the 10 Infantry Division, ensuring resilient connectivity and security for mission-critical operations across remote sites, significantly enhancing operational efficiency and communication.
- Stakeholder Collaboration & System Integration: Engaged with stakeholders to conduct requirement analysis, participated in system design, led development, and oversaw the seamless integration and deployment of advanced communication systems, ensuring operational readiness and effectiveness.
- Satellite Communication & Security Management: Maintained reliable satellite communication system, resolved classified network issues & implemented security solutions in collaboration with the National Telecommunication Transmission Network (NTTN), ensuring uninterrupted & secure communication.
- **Cybersecurity Awareness Training:** Conducted comprehensive cybersecurity workshops, seminars, and training sessions for officers, soldiers, and their families during Cybersecurity Awareness Month in 2022 and 2023, fostering a culture of security and vigilance within the division.
- **Artificial Intelligence Education:** Delivered specialized training sessions on AI & Deep Learning, emphasizing their future potential & application in addressing multidimensional challenges.
- Advanced Software Design & Development: Led the design of high-level and low-level software
 architectures, developed comprehensive diagrams and logical specifications, secured client approval,
 and executed necessary changes, ensuring robust and scalable software solutions.

- Military IT Systems Implementation: Worked on developing critical military IT systems, including "Digidak," a digital correspondence system, and "Army Command Management System (ACMS)," enhancing operational efficiency and strategic planning capabilities within the Bangladesh Army.
- **Comprehensive Software QA:** Conducted rigorous software testing, analysis, and bug reporting using agile methodologies, ensuring the highest standards of quality and performance.
- IT Project Management & Supervision: Led critical military application projects, ensuring successful delivery and deployment of innovative technology solutions.
- Innovative Surveillance & Security Implementation: Implemented 81 km long surveillance & security project within the "Forcibly Displaced Myanmar Nationals (FDMN)" camps, utilizing innovative engineering solutions to enhance security and monitoring capabilities.

Platoon Commander, Operating Platoon

Quarter Master

Communication Liaison Officer, MLRS Long-Range Missile Firing

Platoon Commander, Signal Center Platoon

Pec '20 to April '22

Second-in-command, Radio Platoon

Officer Cadet, Bangladesh Military Academy

Nov '22 to April '22

April '22 to Nov '22

April '23 to April '23

Dec '20 to April '22

Dec '18 to Dec '20

Officer Cadet, Bangladesh Military Academy

Dec'15 to Nov'18

- Acted as the communication liaison officer for Tiger MLRS's long-range missile firing & kept constant comm with Air Traffic Control (ATC), Bangladesh Air Force RADAR control & Bangladesh Navy for the Air & Sea Clearance of the firing path using high and low-band encrypted wireless communication.
- Collaborated with the National Telecommunication Transmission Networks (NTTN) several times for IP-based transmission support & maintained critical communication with Air Traffic Control (ATC), Bangladesh Air Force RADAR control, and Bangladesh Navy.

Major Achievements:

- Surveillance and Security Establishment Project, "Forcibly Displaced Myanmar Nationals" Camps, Cox's Bazar, Bangladesh (February 2022 December 2023)
 - ✓ Project Cost: BDT 12.7 Crore (Led a team of 150+ engineers and technicians, deploying over 2000 strategically positioned security cameras across 81 KM of remote and hilly terrain)
- Construction of Shorobor Community Complex, 10 Infantry Division (March '23 April '24)
 - ✓ Project Cost: BDT 5.65 Crore (Played the role of Project Officer) (Completed the comprehensive project, spanned seven separate compounds with multiple facilities)
- Redesigned Network Architecture, 10 Infantry Division, Cox's Bazar, (May 2023 August 2023)
 - ✓ Engineered a comprehensive redesign of the network architecture, and restructured the infrastructure of multiple transmission mediums.

Extra Curriculum Activities:

- Volunteer from Nation Building after Cyclone Amphan (May 2020 July 2020)
 - ✓ **Disaster Relief Volunteer:** Contributed to Cyclone Amphan nation-building efforts by distributing emergency supplies, providing medical aid & supporting search and rescue operations.
 - ✓ Community Rebuilding Support: Assisted in cleanup and debris removal, established temporary shelters, and offered psychosocial support to affected communities.
 - ✓ Infrastructure Repair and Education Initiatives: Engaged in infrastructure repair, livelihood support, and education initiatives, fostering resilience and aiding long-term recovery.

Soft Skill: Teamwork, convincing, inspiring, influencing, negotiation, leadership skill. **Language:** Fluent in both Bengali and English.

References: 1. Professor Shah J Miah, Professor of Business Analytics, Program Director, Bachelor of Business Analytics, and Director of Alumni Engagement at Newcastle Business School, The University of Newcastle. Phone: (+61) 249854043, Email: shah.miah@newcastle.edu.au 2. Lieutenant Colonel Muhammad Nazrul Islam, PhD, Associate Professor, Department of CSE, MIST Phone: (+88) 01725560099, Email: nazrul@cse.mist.ac.bd 3. Lieutenant Colonel ASM Nur Mokarrom, Commanding Officer, 7 Signal Battalion. Phone: (+88) 01769102126, Email: 7sigbn.co@army.mil.bd