MOHAMMAD SHAHEDUR RAHMAN

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OBJECTIVE

Lawful Permanent Resident of the United States, authorized to work without sponsorship. Ph.D. student specializing in AI security, graph AI, and scalable graph analytics, with research focused on risk analysis in the AI supply chain (particularly large language models). With over 14 years of leadership in cybersecurity, IT auditing, GRC, project management, digital transformation, and Big Four consulting within fintech and enterprise ecosystems. I excel at driving large-scale, cross-functional technology initiatives, and aim to leverage graph AI, machine learning, and security engineering to design innovative, scalable, privacy-preserving, and resilient solutions that mitigate evolving threats, ensure compliance, and deliver measurable business impact in complex digital environments.

EDUCATION

Ph.D. in Computer Science, University of Texas at Arlington, TX.   Fall 2023 – Present
Immersed in uncovering the vulnerabilities and exploring potential exploits within the AI supply chain.

M.Sc. in Information Systems Security (MISS), BUP, Bangladesh.   Feb 2018
CGPA: 4.0/4.0 – *Awarded with Chancellor's Gold Medal for outstanding performance in Academics.*

M.B.A. in Management Information Systems (MIS), University of Dhaka (DU), Bangladesh.   Dec 2016

B.Sc. in Computer Science & Engineering, BUET, Bangladesh.   Feb 2011

PROFESSIONAL EXPERIENCES & FEATURED PROJECTS

Industry Domains: Financial Services · Government (FinTech) · Consulting · Software Engineering   **Experience: 14+ Years**

Summer Security Audit Intern, Federal Home Loan Bank (FHLB) – Dallas, TX   May 2025 – July 2025

- Contributed to IT, operational, and compliance audits, ensuring SOX, BCP-DR, record retention, and FHFA compliance.
- Prepared audit work papers using FHLB Dallas's methodology and built a SharePoint audit site to streamline documentation.
- Proposed AI use cases to the management for digital transformation.
- Engaged in leadership discussions to gain insights into financial markets, enterprise risk, and regulatory oversight.

Graduate Student Researcher, University of Texas at Arlington – Arlington, TX   Fall 2023 – Present

- Researched AI supply chain risks in LLM ecosystems, uncovering prompt injection flaws and inherent vulnerabilities.
- Developed graph-based methods to trace LLM dependencies for scalable risk analysis.
- Designed secure LLM evaluation architectures incorporating adversarial testing and data provenance tracking.
- Integrated AI security and graph learning to advance privacy-preserving solutions for generative AI.

Chief Information Security Officer (CISO), BRAC Bank PLC – Bangladesh   Nov 2022 – Aug 2023

- Delivered board-level risk reports, strengthening resilience through proactive vulnerability management.
- Led a **30-member** team to execute the cybersecurity strategy across **187** branches and **1,041** agent-banking outlets.
- Spearheaded digital transformation with security-driven analytics and tools, enhancing enterprise efficiency by **25%**.
- Directed vendor risk, SLA oversight, and GABV-aligned security portfolios supporting sustainable finance.
- Deployed XDR, EDR, DLP, MDM, anti-ransomware, SIEM, and SOAR systems for 24/7 threat detection and incident response.

National IT Security Consultant, e-GOV CIRT Project (World Bank Funded) – Bangladesh   Jan 2019 – Sep 2022

- Developed Bangladesh's National Cybersecurity Strategy, IT Audit Framework, and Cloud Computing Framework.
- Directed audits of Tier IV data centers **(2 PetaBytes)**, toll systems, and the National Data Center (Tier III).
- Served as a member of the Cybersecurity Research Wing and Digital Forensics Lab, driving digital transformation initiatives.
- Led cross-functional teams and collaborated with government, finance, and academia to strengthen national digital security.

Assistant Vice President (IT Security), Eastern Bank PLC – Bangladesh   Nov 2016 – Dec 2018

- Spearheaded threat detection and incident response, driving cybersecurity strategy and ensuring regulatory compliance.
- Deployed 24/7 SIEM-SOAR and led digital transformation, mitigating **99.9%** of threats and reducing manual processes by **40%**.
- Delivered security projects that boosted infrastructure resilience by **30%**, measured by uptime, recovery time, and risk posture.

Assistant Manager (Cybersecurity), KPMG – Bangladesh   Feb 2015 – Nov 2016

- Led IT audits for the Central Bank and major banks, covering **15%** of the national banking sector.

- Conducted CRAMM-based risk and vulnerability assessments, mitigating **200+** vulnerabilities.
- Developed ISO 27001, ITIL, and COBIT-compliant policies as an IT-business liaison, supporting enterprise digital transformation.
- Secured Oracle JD Edwards ERP, implementing full-cycle P2P and O2C modules with SLA adherence.

Senior Programmer (ERP Security), IBCS-PRIMAX Software(Bangladesh) Limited – Bangladesh   Jan 2014 – Jan 2015

- Led secure ERP implementations (Oracle EBS, JD Edwards) for 3 organizations, supporting **1000+** users, boosting efficiency by **25%**, and achieving **98%** compliance across **5 deployments**.
- Reduced security incidents by 30% through encryption, masking, RBAC, **20+** quarterly patches, **12+** annual recovery tests, proactive maintenance, automated backups, and continuous monitoring.

IT Specialist (Security), IBM – Bangladesh   Oct 2012 – Dec 2013

- Secured Airtel Bangladesh's infrastructure via real-time monitoring, vulnerability assessments, GDPR/CCPA-compliant audits.
- Aligned security solutions with business objectives, ensuring SLA adherence and supporting enterprise modernization.
- Administered Oracle E-Business Suite, implementing encryption, RBAC, and patching to maintain **99.9%** uptime.

EXPERTISE & ACHIEVEMENTS

- **AI Security & Graph Learning:** Built a **400K+** node AI supply chain graph to trace model lineage, and identify vulnerabilities.
- **Cross-Functional Leadership:** Oversaw **$2M+** in security portfolios; led national policies and delivered board-level risk briefings.
- **Cybersecurity Strategy:** Led a **30-member** team; deployed SIEM/SOAR/XDR/anti-ransomware across **1,000+** sites, mitigating **99.9%** of ransomware and DDoS threats.
- **Digital Transformation:** Directed security-focused modernization using cloud-native automation, improving efficiency by **25%**, reducing manual effort by **40%**, and saving **$1.5M** annually.
- **IT Audit & Compliance:** Conducted audits for **15+** major banks; ensured SOX, ISO 27001, PCI-DSS, and GDPR compliance.
- **Secure Cloud & Container Ops:** Secured microservices; deployed K8s/K3s clusters with RBAC, MDM, and DLP enforcement.

SOFT & TECHNICAL SKILLS

- **Soft Skills:** Leadership, stakeholder collaboration, agile communication, mentoring, strategic decision-making.
- **Project Management:** Jira, Trello, Confluence, MS Project, SharePoint, Agile/Scrum.
- **Programming Languages & Tools:** Python, Bash, SQL, C; Jupyter, Selenium, NetworkX.
- **AI/ML Frameworks & Libraries:** PyTorch, TensorFlow, Scikit-learn, Hugging Face, Transformer, spaCy, Pandas, NumPy.
- **Cybersecurity Tools:** Kali Linux, Nmap, Nessus, Burp Suite, SIEM, SOAR, XDR, EDR, MDM, DLP.
- **Container Orchestration:** Kubernetes (k3s, k8s), Docker, Docker Swarm, Prometheus, Linkerd, cGroup.
- **ERP:** Oracle JD Edwards, Oracle EBS Suite, O2C, P2P.
- **Cloud Computing:** AWS (EC2, Lambda), GCP, Azure.
- **Web Development:** HTML, CSS, Bootstrap, MERN, MEAN, JavaScript, Flask, Jamstack.

PROFESSIONAL CERTIFICATIONS

- **Project Management:** PMP, Six Sigma Black Belt, PRINCE2 Practitioner.
- **GRC:** CRISC, ISO 27001 LI, ISO 27701 LI, ITIL Foundation.
- **IT Audit:** CISA, ISO 27001 LA, CSA Star, PCI-DSS Implementation.
- **Cybersecurity:** ISC2 CC, C|TIA, C|EH, ISO 27032, C|SCU, C|BP.

AWARDS AND ACCREDITATIONS

- **STEM Scholarship & GTA (2023–Present):** Full tuition support + assistantship at UTA.
- **TA of the Month (Feb 2025):** Awarded best Teaching Assistant among 105 in the Computer Science Department.
- **Chancellor's Gold Medal (2020):** Best performance in master's (awarded by the President of Bangladesh).
- **Gold Medals (2007):** Top performance in 12th grade, awarded by Janata Bank.
- **ITEE Certification:** Competitive Japanese exam under JICA, Digital Bangladesh.
- **Memberships:** ISACA (Silver), PMI, EC-Council, IEB, Bangladesh Computer Society.

SELECTED PUBLICATIONS

- M. S. Rahman *et al.*, "HuggingGraph: Understanding the Supply Chain of LLM Ecosystem," *ArXiv*, 2025.

CO-CURRICULAR ACTIVITIES

- **Leadership:** Fall Leadership Retreat 2024, Team Certification 2023.
- **Hackathons & Events:** HackUTA, Code Warrior, Programming Contest, Global Grounds.
- **Mentorship:** Cybersecurity training and mentoring.
- **Tech Talks:** Tech leadership dialogues.
- **Sports:** Agility and strategy through active participation.