

MUHAMMAD AHMAD RATHORE

Technical Program Director · National CERT – Pakistan | Cybersecurity Program Leadership & National Cyber Defense
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15+ years leading technical programs | 4 countries | 3 compliance frameworks owned | 10 countries coordinated (Asi@Connect)

EXECUTIVE SUMMARY

Technology program leader directing national-scale cybersecurity operations, vulnerability management, and cross-functional security teams. Track record spans building and running national cyber-defense capability, leading compliance-driven infrastructure programs (HIPAA, CMMC, ISO 27001), and coordinating multi-country technical initiatives. Combines hands-on security engineering depth with program-director-level stakeholder and policy coordination.

LEADERSHIP & PROGRAM OWNERSHIP

- Direct cross-functional teams spanning offensive security, platform engineering, and research computing at national scale.
- Own strategic roadmap for indigenous cyber-defense capability, reducing reliance on external tooling through in-house automation.
- Bridge technical delivery with policy and government stakeholders on national cybersecurity programs; prior technical coordination spanned Asi@Connect / TEIN infrastructure across 14 sites in ten countries.
- Held capacity planning, budgeting, and vendor management responsibility for university research cloud/HPC infrastructure; ran Agile/Scrum delivery while briefing senior leadership on program status.
- Directly accountable for audit-readiness and risk posture across three compliance frameworks (HIPAA, CMMC, ISO 27001), translating regulatory requirements into infrastructure and process changes.

PROFESSIONAL EXPERIENCE

Technical Program Director

Aug 2026 – Present

National CERT – Pakistan · Islamabad

- Lead national-scale cybersecurity programs and digital security platforms.
- Drive AI-enabled vulnerability management, VDP, and proactive cyber defense.
- Advance indigenous cybersecurity capabilities, automation, and national cyber resilience.

Cloud and HPC Operations Manager

Jan 2024 – Aug 2025

University of New Hampshire · Durham, NH

- Led research cloud, HPC, and data center operations for a research-intensive university.
- Directed hybrid cloud migrations (AWS, Kubernetes, OpenStack) and observability/automation tooling (Terraform, Prometheus, Grafana, ELK).
- Delivered infrastructure compliant with HIPAA, CMMC, and ISO 27001; owned capacity planning and budget forecasting.

Researcher — Malicious URL Detection

Jan 2015 – Dec 2015

Canadian Institute for Cybersecurity, University of New Brunswick

- Built ML models for malicious URL detection integrated with IBM QRadar SIEM, using the ISCX-URL2016 dataset and CICFlowMeter/CIC-AB tooling.
- Published "Detecting malicious URLs using lexical analysis" — 344 citations on Google Scholar.
- Won the Impact Award at UNB's TME Student Pitch Competition (2015) for KnowYourChild, alongside Muhammad Saad Amjad and Rizwas Ali.

Senior Software Developer (Security)

Oct 2010 – Dec 2014

Air University · Islamabad

- Secured VoIP and mail systems for 1,000+ users; managed Active Directory, DNS, DHCP, and ISA Server.
- Deployed and administered Barracuda NG Firewall, Cisco SSL VPN, and Check Point security infrastructure.
- Conducted risk and vulnerability assessments; secured Microsoft Exchange environments with endpoint protection.

SELECTED PROJECTS

- National VDP / Cyber Patriot & NVIMS (National CERT Pakistan) — national vulnerability disclosure and AI-enabled vulnerability management programs.
- OF@TEIN / Asi@Connect — federated cloud-native edge playground across 14 sites in 10 countries; visibility, orchestration, and monitoring.

CERTIFICATIONS

Certified Ethical Hacker (CEH), EC-Council · CCNA · Workshop Series for New Managers

EDUCATION

- Ph.D., Computer Science — Gwangju Institute of Science and Technology (GIST), South Korea
- M.Sc., Information & Communication Systems Security — KTH Royal Institute of Technology, Sweden
- B.S. (Hons), Computer Science / Software Engineering — COMSATS Institute of Information Technology

PUBLICATIONS & RESEARCH

8 Q1 journal publications · 8+ conference papers · 400+ citations · h-index 8. Full list: scholar.google.com/citations?user=GoiH9mkAAAAJ