

Bilal Ahmed

Senior Engineering Leader – Payments, Security & SaaS

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Open to: Full-time remote roles from Pakistan (EOR or contractor). Open to relocation and employer-sponsored work authorization for the right long-term role · **Time zone:** UTC+5

Professional Summary

Senior Engineering Leader in **payments, security, and B2B SaaS platforms** with 20+ years of experience designing and delivering secure, scalable systems. Led **network tokenization, account updater, and high-volume payment data ingestion** at Pagos, handling millions of card-not-present transactions per month and improving approval rates by up to **7.5%** while cutting recurring declines by **~33%**.

Currently CEO & Co-Founder at **SYNVRA**, an early-stage, compliance-by-design **LIMS & validation automation** platform for regulated labs (21 CFR Part 11, ALCOA+, ISO 17025). Through **AegisPeak** (AI-driven cybersecurity) and **AquilineSoft** (software & data studio), I have led cybersecurity and software consulting projects for enterprise and government organisations, including UNDP/GEF and Pakistan's Ministry of Climate Change. These founder studios are low-bandwidth, flexible ventures that have historically run alongside full-time roles; I am now actively seeking a primary **Senior Engineering Manager / Director of Engineering** position and can scale these ventures around it (nights/weekends or advisory only).

Blend of **hands-on architecture** (.NET, Python, AWS) with **distributed team leadership** across North America, Europe, the Middle East, and South Asia. Comfortable working directly with founders, product, risk, security, and compliance leaders to ship roadmap outcomes, not just features.

Core Skills

Payments & Platforms

- Card-not-present flows and payment performance optimization
- Network tokenization (Visa VTS, Mastercard MDES/SCOF, Discover, Amex DDX)
- Account updater services (VAU, ABU/RTAU, Discover GAU, Amex Cardrefresher)
- Chargeback and dispute tooling (e.g., Verifi Order Insight)
- Subscription billing and recurring payments optimization
- 3DS and issuer/processor / PSP integrations

Cloud & Data (AWS)

- Event-driven, cloud-native architectures on AWS
- Services: Lambda, ECS/Fargate, SQS/SNS, API Gateway, S3, RDS, Redshift, Kinesis, CloudWatch, Event Bridge, Step Functions
- High-volume and near real-time data pipelines and ETL
- Observability (metrics, logs, traces), SLOs and reliability engineering
- Cost-conscious scaling and resilience design

Security, Compliance & Quality

- Architectures aligned with **PCI DSS** and **SOC 2**
- Secure logging and monitoring, alerting and incident response
- Encryption, key management and secrets handling
- SIEM/SOAR (including Wazuh) and security operations automation
- Exposure to regulated lab environments (21 CFR Part 11, ALCOA+, ISO 17025)
- Audit-ready documentation, evidence trails and validation artefacts

Leadership & Startup Execution

- Building, leading and mentoring distributed engineering teams
 - Hiring, performance management and career growth frameworks
 - Roadmapping and prioritisation with Product, Data and business stakeholders
 - 0→1 product building as founder/CTO; customer discovery and iteration loops
 - Working directly with enterprise merchants, partners, regulators and government bodies
 - Communicating with executive stakeholders and boards
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Professional Experience

SYNVRA – Lahore, Pakistan

CEO & Co-Founder | Oct 2025 – Present

- Building **SYNVRA LIMS**, a compliance-by-design Laboratory Information Management System focused on regulated labs and GxP environments.
- Designing product and architecture so that **21 CFR Part 11, ALCOA+, ISO 17025, and CSA/CSV validation** are built-in from day one, not bolted on.
- Defining open APIs and integrations with ERP/LIMS/QA tools (e.g., SAP, Oracle, ELN/QMS) to support validation automation, evidence vaults and multi-tenant deployments on AWS.
- Establishing a product roadmap that prioritises regulatory alignment, instrument integration and validation acceleration for early pilot customers.
- Currently in early-stage design and customer validation; flexible on time commitment so I can fully focus on a primary full-time role.

Pagos Solutions, Inc. – Remote (US-based fintech)

Senior Engineering Manager | Jun 2023 – Oct 2025

Technical Lead | May 2021 – May 2023

- Improved card-not-present approval rates by **5–7.5%** by leading the rollout of a **PCI-compliant network tokenization platform** across Visa, Mastercard, Discover and Amex, including lifecycle management, fallbacks and performance tuning.
 - Reduced **recurring payment declines** by **~33%** by designing and launching a unified **account updater service** (Visa VAU, Mastercard ABU/RTAU, Discover GAU, Amex Cardrefresher) for high-volume merchants on the Pagos platform.
 - Delivered a **real-time payment data ingestion system** processing millions of transactions per month into AWS (S3, Lambda, Kinesis, Redshift) to power analytics, risk dashboards and merchant-facing products such as performance visualizations and anomaly detection.
 - Enhanced chargeback outcomes via **Verifi Order Insight** integration and enriched issuer-side transaction data, giving merchants stronger evidence to reduce disputes and representment losses.
 - Led distributed teams of backend, data and DevOps engineers across three continents; partnered with Product and Data to deliver roadmap items ~30% faster while maintaining reliability and compliance.
 - Defined and implemented observability, alerting and incident response practices, including structured logging, tracing, on-call rotations and runbooks.
 - Contributed to PCI/SOC2 audit readiness through secure coding practices, access controls, key rotation, change management and documentation.
 - Operated in a fast-moving, remote-first global startup environment, delivering under tight timelines and high stakes in close partnership with Product, Data and founders.
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Barbican LLC – Remote (US-based cybersecurity vendor)

Senior Technical Lead (Contract) | Mar 2020 – Apr 2021

- Led design and delivery of an **AI-powered SOAR platform** for enterprise cyber defence, integrating SIEM data, analytics and automated response.
 - Streamlined incident response workflows and playbooks to reduce dwell time and improve coordination across security operations teams.
 - Designed scalable cloud security architecture combining SIEM, advanced analytics and threat intelligence feeds, strengthening resilience against sophisticated attacks.
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Securencrypt – Remote (US-based cybersecurity vendor)

Technical Lead / Lead Software Architect / Senior Software Engineer (Contract) |
2011 – 2020

- Led architecture and development of endpoint protection and encryption products, with a strong focus on **ransomware defence** and secure data storage for enterprise customers.
 - Designed and evolved security orchestration and automation workflows, collaborating closely with product, compliance and operations teams.
 - Built high-performance security and encryption components in C/C++ and .NET, improving reliability and throughput for email, file and endpoint protection solutions.
 - Mentored engineers on design, code quality and incident response practices, raising the bar for maintainability and on-call readiness.
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AegisPeak Private Limited – Lahore, Pakistan

Founder & CTO – AI-Driven Cybersecurity | May 2019 – Oct 2025 (part-time alongside full-time roles)

- Founded a cybersecurity venture focused on **AI-powered SIEM/SOAR** and ransomware defense for enterprise clients.
 - Designed **multi-tier security architectures** combining endpoint detection and response, log collection, correlation rules and automated playbooks.
 - Led development of prototypes for anomaly detection and prioritised incident response, integrating with existing SOC toolchains.
 - Co-authored patent documentation for an **AI-driven SOAR framework** that prioritises and automates incident response based on business impact.
 - Provided security architecture advisory services to clients in finance, telecom and SaaS.
 - From 2023 onward, AegisPeak operated primarily in a low-bandwidth advisory/experimentation mode while I focused on Pagos and SYNVRA.
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AquilineSoft – Lahore, Pakistan

Founder & CEO / CTO – Software & Data Studio | Nov 2004 – Oct 2025 (boutique studio, part-time)

- Ran a boutique software engineering and consulting practice serving clients in North America, Europe, the Middle East and Pakistan.
- Delivered cloud-integrated applications and data platforms across sectors including environment, payments, education and enterprise software.
- Led small, senior-heavy teams and often acted as both architect and engagement manager, translating client needs into scalable solutions.

Selected Project – UNDP / GEF – Islamabad, Pakistan

System Architect (Contractor – individual engagement) | Aug 2020 – Dec 2020

- Designed the end-to-end architecture, database schema and SRS for an **Environmental Information Management System (EIMS)** for Pakistan's Ministry of Climate Change, funded by UNDP/GEF.
 - Captured functional and non-functional requirements, defined data models and produced documentation for multi-stakeholder usage (academia, government authorities, researchers).
 - Built data import/export modules to ingest datasets from multiple government bodies and delivered role-based dashboards to support evidence-based environmental decision-making.
 - Planned deployment and security architecture to ensure data integrity, controlled access and long-term maintainability.
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Earlier Experience

Freelance Software Engineer – Various Clients

Software Engineer / Consultant | 2003 – 2011

- Developed security-focused Windows utilities, network/messaging tools and COM/ActiveX components for international clients and local ISP users.
- Designed and maintained Windows desktop and server applications in C/C++ and .NET with SQL Server backends, optimised for low-spec hardware and limited connectivity (ISPs and small business customers).
- Acted as a trusted long-term partner for several small and medium businesses needing high-reliability desktop and server software.

Premium Telecom – Lahore, Pakistan

Software Engineer | 2002 – 2003

- Worked on telecom software systems including network monitoring, billing and customer-facing applications.
 - Contributed to performance optimisation, troubleshooting and feature delivery in a mixed Windows and Linux environment.
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Education

Executive MBA – Quantic School of Business and Technology (Washington, DC – online) | In progress (~55% complete)

- Concentrations completed: **Business Foundations, Accounting, Markets & Economies, Finance, Leading Organizations.**

- In progress / upcoming: **Strategy, Data & Decisions** and remaining advanced concentrations.

MS, Computer Science – Hamdard University, Karachi, Pakistan | 2002

- Dean's Honor List · CGPA: 3.64 / 4.0

BSc, Mathematics (A & B) and Physics – University of the Punjab, Lahore, Pakistan | 1999

Certifications, Training & Affiliations

- PMP Exam Prep (35 Contact Hours) – PMI Lahore Chapter, 2024
 - Wazuh Training Course for Security Engineers – Wazuh.com, 2020
 - Secure Coding & Security Awareness Training – Thoropass (various courses, 2023–2024)
 - Member, Project Management Institute (PMI) – Membership ID 4773666
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Languages

- **English:** Fluent
- **Urdu:** Native