

# Bilal Ahmed

## Senior Engineering Manager / Director of Engineering (Payments • Security • B2B SaaS)

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**Work authorization:** Pakistan-based. **US/UK/EU:** available **remote via EOR/contract** immediately. **MENA/GCC (UAE/Dubai/Qatar):** open to **relocation with employer-sponsored visa**; can start remote and relocate once processed.

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## Summary

Senior engineering leader with **20+ years** building secure, scalable fintech and cybersecurity products. At **Pagos (US fintech)** led **network tokenization**, **account updater**, and **high-volume payment data ingestion**—handling **millions of card-not-present transactions/month**, improving **approval rates by 5–7.5%**, and cutting **recurring declines by ~33%**. Blend of hands-on architecture (**.NET, Python, AWS**) with engineering management for distributed teams: delivery cadence, quality, reliability, and audit readiness.

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## Pagos impact highlights (delivery + engineering management)

- **Business impact:** improved **CNP approval rates by 5–7.5%** by leading rollout of a **PCI-compliant network tokenization** platform across **Visa, Mastercard, Discover, and Amex** (lifecycle management, fallbacks, issuer/network edge-cases, performance tuning).
- **Business impact:** 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.
- **Scale:** delivered near real-time ingestion processing **millions of transactions/month** into AWS (**S3, Lambda, Kafka, SQS, Athena, RDS, Redshift**) powering analytics, risk dashboards, and merchant-facing insights.
- **EM execution:** ran Agile delivery end-to-end (**Jira**, Scrum ceremonies, sprint planning, grooming, retros, **Linear, Clickup**) and maintained predictable releases with a strong quality bar.
- **Release & quality leadership:** operated weekly deployments using **Terraform (IaC)** and **GitHub Actions CI/CD**, partnering tightly with **QA** and enforcing **unit, functional, and end-to-end testing** gates.

- **Global reliability:** built a sustainable on-call model—scheduled **PagerDuty** rotations across time zones, improved observability, and drove incident hygiene (runbooks + postmortems).

**Platforms served merchants/brands including: Adobe, Eventbrite, GoFundMe, Groupon, Wix, LastPass, Crocs** (plus additional payment platforms and high-volume digital merchants).

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## Professional Experience

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

**Senior Engineering Manager** (Jun 2023 – Oct 2025) • **Technical Lead** (May 2021 – May 2023)

### Engineering Management & Delivery

- Ran delivery operating cadence: **daily standups**, sprint planning, grooming, retros, and Jira sprint execution across multiple parallel workstreams.
- Led weekly release train: coordinated releases across engineering + QA, managed risk, and ensured reliable deploys using **Terraform** and **GitHub Actions**.
- Built a strong testing culture: set expectations and practices for **unit testing**, **functional testing**, and **end-to-end testing**, and held teams accountable through PR review and release gates.
- Held **biweekly 1:1s** to share/take feedback, supported growth plans, and ran **quarterly + annual performance reviews**, producing performance reports aligned to expectations and outcomes.
- Owned on-call health: scheduled **PagerDuty** rotations for a globally distributed team, maintained runbooks, and led post-incident reviews to prevent recurrence.

### Product/Platform Leadership (hands-on + strategic)

- Owned core product domains: **network tokenization**, **account updater**, and **high-volume payment data ingestion**—from architecture through delivery and ongoing operations.
- Enhanced chargeback outcomes via **Verifi Order Insight** integration and enriched issuer-side transaction data, strengthening merchants' evidence for dispute representment.
- Strengthened operational maturity: defined **SLOs**, improved **observability** (structured logs/metrics/tracing), tightened alerting, and improved incident response workflows.

- Supported **PCI DSS / SOC 2** readiness through secure SDLC practices, access controls, key rotation, change management, and audit-ready documentation.
  - Stayed hands-on when needed: contributed to coding, testing, debugging, and production support to unblock delivery and keep quality high.
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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 integrating SIEM telemetry, 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.

## 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 focus on **ransomware defense** and secure data storage.
- Built and evolved security orchestration/automation workflows in collaboration with product, compliance, and operations stakeholders.
- Delivered reliable, hardened services and agents emphasizing performance, maintainability, and secure-by-design patterns.

## UNDP / GEF (Pakistan Ministry of Climate Change) — Islamabad, Pakistan

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

- Designed end-to-end architecture, database schema, and SRS for an **Environmental Information Management System (EIMS)**.
  - Captured functional and non-functional requirements; defined data models and documentation for multi-stakeholder usage.
  - Built data import/export modules and role-based dashboards supporting evidence-based decision making.
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Advisory / Part-time ventures (low bandwidth; does not impact primary role)

Synvra Innovations — Pakistan / Remote

**Co-Founder / CEO (Part-time; advisory/low-bandwidth)** (Since Oct 2025)

- Product direction and architecture for compliance-by-design LIMS and validation automation for regulated labs (**21 CFR Part 11, ALCOA+, ISO 17025**).

AegisPeak — Pakistan / Remote

**Founder (Advisory/Part-time; low-bandwidth)** (2019 – 2025)

- Incubated AI-driven cybersecurity concepts/prototypes; advised on architecture and validation alongside full-time work.

Aquilinesoft — Pakistan / Remote

**Founder (Advisory/Part-time; low-bandwidth)** (2004 – 2025)

- Boutique software/data consulting; led solution design and delivery governance for select clients while maintaining primary employment.

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## Core competencies

**Payments:** Network tokenization • Account updater (VAU/ABU/RTAU/GAU/Cardrefresher) • CNP payments • Disputes/chargebacks (Order Insight) • High-volume merchant platforms

**Cloud & data:** AWS (Lambda, Kafka, SQS, Athena, RDS, S3, Redshift, CloudWatch, EventBridge, Step Functions) • Datadog • Real-time pipelines/ETL • Reliability engineering

**Security & compliance:** PCI DSS • SOC 2 • Secure coding • Access control & key management • Incident response • SIEM/SOAR (incl. Wazuh)

**Leadership:** Distributed teams • Scrum delivery • Stakeholder alignment • Release management • Coaching, feedback, performance reviews

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## Tech stack (recent)

- **Languages:** .NET, Python
  - **AWS:** Lambda, Kafka, SQS, Athena, RDS, Redshift, S3, CloudWatch, EventBridge, Step Functions
  - **Practices:** Terraform (IaC), GitHub Actions CI/CD, test automation, on-call (PagerDuty), observability, SLOs
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## Education & training

- **Executive MBA (in progress ~55%)** — Quantic School of Business and Technology (online)
  - **MS, Computer Science** — Hamdard University, Karachi (2002) — Dean's Honor List • CGPA 3.64/4.0
  - **BSc, Mathematics & Physics** — University of the Punjab, Lahore (1999)
  - **Training:** PMP Exam Prep (35h, 2024) • Wazuh Security Engineer (2020) • Thoropass Secure Coding & Security Awareness (2023–2024)
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## Languages

English (fluent) • Urdu (native)