

Fady Massoud

Staff Engineer · Technical Lead · Software Architect

FinTech & Payments Platforms · .NET · Azure · AWS · Microservices · Event-Driven · Kafka · Distributed Systems

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Authorized to work in the USA · Green Card

SUMMARY

Staff-level engineer and software architect with **18+ years** building FinTech payments platforms on .NET, Azure, and AWS. **Architected 20+ event-driven .NET Core microservices** at Paysafe using DDD, CQRS, Kafka, and saga/outbox patterns — serving millions of users. Currently leading the **technical re-platforming** of a mission-critical .NET payments system to AWS with **zero downtime** and full **PCI DSS** compliance. Delivered **+40% release velocity, +25% platform performance, and -30% vulnerabilities** through CI/CD automation, secure SDLC, and architectural refactoring. Author of REST API and observability standards adopted across 12+ engineers and multiple product teams.

CORE COMPETENCIES

Architecture & Distributed Systems	Microservices, Event-Driven, Event Sourcing, DDD, CQRS, Kafka, Serverless, idempotency keys, circuit breaker / retry / backoff, rate limiting, REST API design (OpenAPI / Swagger), SOLID, design patterns, secure SDLC.
Cloud Platforms	AWS — EC2, RDS, DynamoDB, SQS, S3, CloudWatch, IAM, KMS. Azure — Azure VMs, Event Grid.
Backend & Languages	C# / .NET 8 / .NET Core / .NET Framework, ASP.NET, Web API, MVC, WCF; TypeScript, JavaScript; Angular, React.
DevOps	Azure DevOps, Docker, CI/CD pipelines (TFS, Bamboo, Harness), feature flags, blue-green & canary deployments. (Additional exposure: Spring Cloud, IBM Cloud.)
Reliability & Observability	SLOs / SLIs / error budgets, structured logging, blameless post-mortems.
Data	MS SQL Server (query optimization, indexing, replication), MongoDB, MySQL, Oracle, DynamoDB.
Security & Compliance	PCI DSS (multi-cycle audit pass), OWASP, Veracode (SAST), DAST, TLS encryption, zero-trust principles, secure SDLC, audit remediation.
Leadership & Influence	Technical leadership of 12-engineer team, design-doc authorship, design-review forum, architecture mentoring, cross-team API standards, code-review SLAs, on-call program design, hiring & interview loops, performance reviews & calibration, 1:1 cadence, tech-debt budgeting, headcount planning.
AI-Augmented Engineering	AI pair-programming (Cursor) and prompt-engineering for backend scaffolding; introduced Cursor, Claude, ChatGPT, Gemini into team workflows with usage guidelines.
Tools	Visual Studio, VS Code, Cursor, Git, GitHub, Bitbucket, Jira, Confluence, SonarQube.

EXPERIENCE

Lead Software Engineer · Engineering Manager (Hands-On)

Mar 2025 – Present

Kort Payments (acquired by Paysafe) · FinTech / Payments · Remote

- **Designed and led the zero-downtime AWS migration** of a mission-critical .NET payments platform (EC2, RDS, SQS, CloudWatch, IAM) — achieved full PCI DSS audit pass on first cycle post-migration; cut infrastructure cost by 30%.
- **Re-architected core payment-processing services** — introduced idempotency keys, retry-with-backoff, and circuit breakers; cut payment-processing latency by **25%** and eliminated 3 classes of duplicate-charge failures.
- **Authored the platform's CI/CD modernization design doc** — feature flags, blue-green deploys; raised deployment frequency from weekly to daily and cut median PR-to-prod time from 3 days to 6 hours.
- **Drove the architectural roadmap** for the payments platform across 5 quarters; sequenced 4 design docs across 3 teams and aligned with Product on quarterly OKR delivery.
- **Lead a 12-engineer team technically** — author design docs, run weekly design reviews, pair on highest-risk refactors, unblock cross-team dependencies.
- **Established secure SDLC standards** — SAST/DAST in CI, PR-level code-review SLAs (median TTR < 24h); reduced production security findings by 45%.
- **Designed the on-call rotation, runbook library, and blameless post-mortem process** for 8 services; cut MTTA from 25 minutes to 10 minutes.
- **Introduced AI-augmented engineering workflows** across the team (Cursor, Claude, ChatGPT, Gemini); recovered an estimated 40 engineering hours/sprint.

Lead Software Engineer · Solution Architect

Jun 2019 – Feb 2025

Paysafe Group · FinTech / Payments · Remote

- **Architected enterprise-scale FinTech payments platforms** serving 5M+ users across 15 markets, handling 2,500 TPS at peak with 99.95% availability.
- **Decomposed a 1.5M-LOC .NET Framework monolith** into 20+ .NET Core microservices on **Azure (Azure VMs, Event Grid)** — applied DDD bounded contexts and event sourcing to enable per-service ownership.
- **Authored REST API and platform standards** — OpenAPI 3.0 contracts, versioning policy, idempotency-key conventions, rate-limit + error-envelope patterns — built reusable .NET templates + Roslyn analyzers; CI-enforced compliance across 20+ services and 8 teams.
- **Designed and rolled out the CI/CD platform** (Azure DevOps) with automated canary deploys — raising release velocity **+40%** team-wide and cutting median PR-to-prod time from 5 days to 2 days.
- **Embedded security into the SDLC**: SAST (Veracode), OWASP Top-10 checklist for all PRs, TLS 1.2+ enforcement, secret rotation; reduced high-severity findings by 45% across 20+ services.
- **Owned PCI DSS audit readiness** across 20+ services: drove remediation of 40 high-severity findings, and contributed to clean audit passes across 5 consecutive cycles.
- **Led the cross-team architecture forum** — authored 12 design docs adopted org-wide; established the design-review process used by 8 product teams.
- **Mentored 10+ engineers** through architecture reviews, paired refactoring, and weekly office hours; trusted technical resource across multiple product teams.

Senior Software Engineer

Jul 2017 – Jun 2019

Paysafe Group · FinTech / Payments · Irvine, CA

- **Designed Kafka producer/consumer services** for payment-domain event flows — processed 150,000 events/min with sub-second latency; modernized legacy WCF endpoints to REST.
- **Led TSYS and Fiserv processor recertifications** and onboarded 3 new banking partners — deep card-network and acquirer-integration experience.
- **Cut Veracode high-severity findings by 30%** across 15 services via dependency upgrades, input-validation hardening, and developer secure-coding training.
- **Delivered 2FA** and platform-wide security enhancements, strengthening PCI DSS compliance.

- **Automated CI/CD pipelines** and build infrastructure, improving release velocity and deployment consistency.
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Senior Software Engineer

Jun 2014 – Jun 2017

CraneMorley · E-Learning · Long Beach, CA

- **Modernized legacy CMS, LMS, and Microsoft Dynamics platforms** — refactored ASP, VB, and DotNetNuke applications for scalability and performance.
 - **Cut median report-generation time by 85%** through SQL Server query rewrites and indexing strategy; integrated Cornerstone SCORM API reporting; led data migration and multi-portal infrastructure projects.
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Earlier Experience

Senior Software Engineer (Part-Time), The Dependable Companies — Logistics (LA, 2016) · Software Engineer, Upwork (CA, 2012–2014) · IT/Junior Software Engineer, Credit Agricole Bank — Banking (Cairo, 2009–2011) · .NET Software Engineer, Travel Solutions Egypt (Cairo, 2008–2009).

EDUCATION & CERTIFICATIONS

B.Sc. Computer Science · Helwan University, Cairo

Certifications: Microsoft Certified — Azure Fundamentals · OpenHack — App Modernization with NoSQL

In Progress: AWS Certified Solutions Architect – Associate

SELECTED PROJECTS, TALKS & WRITING

- Migrating a .NET Payments Platform to AWS with Zero Downtime — *article, 2026*
- Decomposing a 1.5M-LOC Monolith Without Stopping the World — *article, 2026*
- Idempotency Keys in Payment Systems — Five Mistakes I've Watched Get Shipped — *article, 2026*
- What "Hands-On Engineering Manager" Actually Means — *article, 2026*