

PANKAJ NAKHAT

QA Engineering Leader | AI/ML Product Quality | Financial Services & Investment Technology

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EXECUTIVE SUMMARY

Senior QA & Engineering Leader with 22+ years of experience, including 14+ years across Tier 1 investment banks (JP Morgan, HSBC, Barclays, UBS), asset management, capital markets, and payment systems. Deep expertise in product quality for AI/ML-powered platforms — from LLM-based conversational products and agentic AI systems to real-time financial decision-making tools and investment intelligence platforms. Entrepreneurial background as Founder & CPO of an IoT product company, bringing product-led thinking to quality engineering. Proven track record of building QA organisations of 50+ engineers across 6 countries, delivering 80% fewer production incidents, \$1M+ cost savings, and 4x faster release cadence. Combines rare financial services domain depth with hands-on AI/ML testing experience and a product owner's mindset for quality.

CORE COMPETENCIES

AI/ML & GenAI Product Testing: LLM Evaluation & Validation (DeepEval, Custom Frameworks) | Agentic AI Testing | GPT-Based Product QA | Prompt Regression Testing | AI Model Output Validation | Predictive Analytics | Self-Healing Test Frameworks | RAG Pipeline Testing

Financial Services & Investment: Investment Banking (JP Morgan, HSBC, Barclays, UBS) | Asset Management & Wealth | Credit & Lending Models | Trading Systems | Payment Systems (Visa) | Portfolio Risk & Analytics | Regulatory Compliance | CBDC / Digital Currency

Product & Technical: Python (Pandas, PySpark, Flask) | JavaScript/TypeScript | Java | Playwright | Selenium | Cypress | Appium | API Testing (RestAssured, Pact, Supertest) | Performance Engineering (JMeter, BlazeMeter) | Data Quality & ETL Validation | Mobile Testing (BrowserStack, Applivery)

Platform & DevOps: CI/CD Pipeline Engineering | Azure DevOps | AWS | GCP | Jenkins | GitHub Actions | Docker | Trunk-Based Development | DORA Metrics | Hybrid Cloud

Leadership & Delivery: Enterprise QA Strategy | Product Quality Ownership | Global Team Building (50+ Engineers) | P&L & Budget Accountability | Agile Coaching (SAFe, Scrum, Kanban) | Stakeholder Management (CIO/C-Suite) | Spotify Model Governance | IoT Product Development

KEY ACHIEVEMENTS

- Established product quality for two AI-powered platforms at ALDAR — a GPT-based conversational AI (HelloAldar) and an investment intelligence tool (Harbour) — designing LLM evaluation strategies, prompt regression testing, and a custom DeepEval framework that enabled non-technical QA to validate model outputs at scale.
 - Led product quality for high-frequency trading systems at JP Morgan (WSS), credit modelling platforms at HSBC, and asset management products at Barclays Wealth — 14+ years across Tier 1 investment banks.
 - Founded iSuraksha Solutions (IoT product company) as CPO, taking GPS tracking and logistics products from concept to market across 3 verticals with development teams in Pune.
 - Delivered \$1M+ cost savings over 3 quarters at HSBC through automation-first strategy on a greenfield credit and lending product backed by financial models.
 - Built a 50-member QA organisation from scratch at ALDAR, supporting 25+ agile pods with AI-driven testing, achieving 80% fewer production incidents and 4x faster delivery.
 - Defined QA strategy for CBDC products across GCC central banks at R3, covering regulatory compliance and distributed ledger platform reliability.
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PROFESSIONAL EXPERIENCE

Head of QA, Release and Reliability — Quality Engineering

2024 – Present

ALDAR Properties PJSC | Abu Dhabi, UAE

Leading enterprise product quality for the UAE's largest listed real estate developer. Accountable for QA strategy, release management, and production reliability across 25+ product-oriented delivery (POD) teams. Directly responsible for quality of AI/ML-powered products alongside CRM, ERP, mobile, and integration platforms.

AI/ML & LLM Product Testing:

- Led product quality for HelloAldar — an in-house GPT-based conversational AI product serving customers, internal teams, and investment stakeholders. Designed LLM evaluation strategies covering response accuracy, hallucination detection, context retention, and prompt regression testing.
- Owned quality for Harbour — an AI-powered real estate planning and investment intelligence product used for cost optimisation, scenario modelling, and portfolio-level planning decisions. Validated model outputs against financial benchmarks and business rules.
- Built a custom LLM evaluation framework using DeepEval integrated with a Flask-based web application, enabling non-technical QA to execute AI validation tests, review model outputs, and flag quality issues without writing code.
- Implemented automated prompt regression testing, output consistency checks, and AI-specific quality gates within CI/CD pipelines to ensure production-grade reliability of AI-driven product features.
- Introduced AI-driven testing tools (Codium, Windsurf) for predictive defect detection, intelligent test generation, and self-healing test frameworks across the broader QA organisation.

Enterprise Product Quality & Release Engineering:

- Built a 50-member QA organisation from scratch, covering Salesforce CRM, ERP, Digital platforms, and Mule ESB integration layers.
- Established end-to-end mobile testing capability for LivAldar super app — ALDAR's flagship consumer product — leveraging Appium automation, BrowserStack real device cloud for parallel testing across 30+ device configurations, and Applivery for beta distribution.
- Transformed release cadence from monthly to hourly deployments through trunk-based development and CI/CD maturity.
- Implemented DORA metrics and reliability dashboards providing executive visibility into product health, engineering performance, and production stability.
- Established Spotify-model governance framework balancing autonomous pod delivery with enterprise-level product quality standards.

Senior Manager, Quality Engineering

2023 – 2024

R3 (Blockchain / DLT Technology) | Abu Dhabi, UAE

Directed QA strategy within R3's professional services arm for Central Bank Digital Currency (CBDC) and distributed ledger technology products — high-trust, regulated financial systems requiring robust data integrity and cryptographic validation.

- Defined end-to-end QA strategy for CBDC products across GCC central banks, ensuring regulatory compliance, transaction integrity, and platform reliability for sovereign financial infrastructure.
- Rebuilt QA from manual to fully automated CI/CD pipelines, significantly accelerating time-to-market for financial product releases.
- Rolled out automation across frontend, backend, and performance layers using Serenity, JMeter, and Selenium — covering complex financial transaction workflows on Corda blockchain.
- Coached teams on test-first delivery, data quality validation, and cryptographic testing practices for distributed financial systems.

Head of QA & Managing Consultant

2012 – 2023

Q-Agile Limited | London, UK

Founded and ran an independent consultancy delivering quality engineering leadership, test automation, and agile transformation to Tier 1 financial institutions and Fortune 500 enterprises. All engagements involved regulated environments with complex product ecosystems requiring deep domain expertise.

Marsh & McLennan (MMC) — Agile/DevOps Coach — Enterprise Transformation

Enterprise-wide agile transformation for one of the world's largest professional services firms (insurance, risk, and investment advisory).

- Led large-scale Agile transformation using SAFe, coaching 15+ squads across business and technology (~70–80 SDETs/developers) on test automation, BDD practices, and DevOps enablement.
- Built bespoke test frameworks from scratch: API (Java, Cucumber, RestAssured), contract testing (Pact), web (Cypress), mobile (Appium, BrowserStack), and data quality (core Java).
- Worked alongside CIO organisation to embed shift-left testing culture and continuous delivery across complex insurance and financial product platforms.

HSBC — QA Engineering Manager — Credit & Lending Product

First QA hire for HSBC's greenfield strategic lending product — an automated credit and lending platform backed by financial models, credit risk scoring, and quantitative strategies for corporate customers.

- Built and managed a team of 40 QAs across 15 component teams and 3 regions (UK, India, Poland), with direct responsibility for product test strategy, budgets, and hiring.
- Delivered \$1M+ in savings over 3 quarters through automation-first, quality-first DevOps transformation of the testing programme.
- Transformed programme from waterfall to BDD-driven automated delivery — covering credit models, lending workflows, and regulatory reporting.
- Architected test strategy across hybrid (on-premise + cloud) infrastructure, covering financial model validation, data integrity, and end-to-end lending journeys.
- Set up BDD frameworks using Serenity, Cucumber, Java 8, RestAssured, Selenium, and Python (Pandas) for data-intensive financial product testing.

Nationwide Building Society — Head of QA — Digital Mortgage & DevOps

- Advised large-scale digital mortgage product on QA, DevOps, and test automation practices; led SDET community building within Nationwide, fostering cross-team knowledge sharing.
- Built JavaScript test automation framework using WebDriverIO and Cucumber-JS; trained and coached teams on BDD, agile test strategy, and test-first delivery for Pega workflow implementation.
- Introduced continuous improvement initiative using Hygieia dashboards for engineering visibility and DevOps metrics.

HSBC — Agile Test Manager (Leadership Team) — Digital Transformation

Part of the leadership team for HSBC's strategic digital transformation programme. Led product testing across microservices, data pipelines, and MI reporting systems sourcing from 20+ upstream systems.

- Introduced CI/CD pipelines using Jenkins, reducing automated regression cycles from three days to three hours.
- Designed multi-layer automation framework covering integration, API, and UI testing for a microservices product architecture (Java Spring Boot, React, Mule, Node.js).
- Created test strategy for complex MI reporting involving transactional data calculations sourced from 20 different systems.

Ruffer LLP (Investment Management) — Agile Test Consultant

- Devised test strategy for transaction reporting products — covering investment transaction processing and regulatory reporting for a firm managing ~£20B+ in absolute-return investment assets.
- Automated financial transaction report testing using JavaScript, Cucumber, and Protractor; performance tested portfolio reporting under load using JMeter and BlazeMeter.

Barclays Wealth & Asset Management — Agile Test Manager

Led product testing for Barclays' wealth and asset management platforms, including the BMAC programme — a data-driven asset management product involving quantitative performance assessment and portfolio analytics.

- Led QA for BMAC — validating data quality, data integrity, and quantitative assessment parameters including Monte Carlo-based portfolio risk simulations and performance attribution models used for investment decision-making.
- Implemented end-to-end automation covering services, UI, and performance testing using Cucumber, Selenium, and Python (Pandas) for data validation.
- Engaged with senior stakeholders on release quality metrics, risk assessment, and compliance reporting for regulated asset management products.

J.P. Morgan Chase — Programme Test Manager / Agile QA Manager

Directed QA across JP Morgan's trading and wholesale securities services (WSS) products — replacing legacy systems with distributed, high-frequency transactional platforms serving institutional clients. Multi-site: London, New York, Hong Kong.

- Managed three offshore QA teams for trading and securities services product programmes; led QA for WSS — a highly transactional distributed system covering trade lifecycle, settlement, and client servicing.
- Transitioned multiple programmes from waterfall to Agile/BDD, implementing JBehave, Java, Selenium, and Hudson-based automation. Coordinated BDD adoption across technology partners.
- Restructured global test team and accelerated product launch by streamlining UAT phases.

Visa Europe — Agile Test Automation Consultant

- Advised on test automation architecture for payment products across multiple portals, implementing Cucumber-JVM, WebDriver, and RESTful API testing frameworks.

UBS AG — Agile Test Consultant

- QA and agile test consulting for UBS's technology division, advising on test strategy, automation architecture, and delivery practices for regulated banking products.

Founder & Chief Product Officer

2013 – 2017

iSuraksha Solutions Pvt. Ltd. | Pune, India (concurrent with Q-Agile consultancy)

Founded an IoT product company delivering GPS tracking, fleet management, and logistics intelligence solutions. Led the full product lifecycle from concept through to market across consumer, enterprise, and government verticals.

- Conceived, designed, and launched three IoT products: real-time GPS vehicle tracker, school bus safety system, and fleet logistics management platform — from product vision through hardware/software integration to customer deployment.
- Built and managed development and operations teams in Pune; established vendor relationships for hardware sourcing, SIM/connectivity, and cloud hosting.
- Defined product roadmaps, feature prioritisation, and go-to-market strategies across 3 verticals (consumer safety, school transport, enterprise logistics).
- Architected the technology stack: embedded firmware, mobile apps (Android/iOS), real-time tracking dashboards, and cloud backend for device telemetry and alerts.
- Managed end-to-end product quality — from hardware reliability testing and mobile app QA to backend performance and real-time data accuracy validation.

EARLIER CAREER

QA Lead — HSBC Investment Bank, London	2010 – 2011
Agile QA Lead — BSkyB, London	2010
Senior Quality Consultant (QA Lead) — ThoughtWorks, London	2008 – 2010
Application Developer (QA Lead) — Royal Bank of Scotland, Gurgaon	2007 – 2008
Senior QA Engineer — OutWorx Solutions, Noida	2006 – 2007
Quality Analyst — ThoughtWorks India	2005 – 2006
QA Engineer — Cybage Software, Pune	2004 – 2005

EDUCATION

Master of Business Administration (IT)	2004
Symbiosis Institute of Computer Studies & Research, Pune, India	

CERTIFICATIONS

- Certified Scrum Master (CSM) — Scrum Alliance
- ICAgile Certified Agile Coach (ACC) — ICAgile
- ICAgile Certified Agile Testing Fellowship (ATF) — ICAgile

ADDITIONAL INFORMATION

Nationality: British Citizen | **Visa Status:** Valid UAE Residence Visa (Employment)
Location: Abu Dhabi, UAE | **Driving License:** Valid UAE Driving License
Languages: English (Native) | Hindi (Native) | **Notice Period:** 1 Month
Cloud Platforms: Azure, AWS, GCP