

Paulo B.

Senior Staff Engineer /Solutions Architect/AI Platforms, Cloud-Native & Distributed Systems

SUMMARY

- Software Architect with 20 years of experience, including a decade in architecture roles across banking, government, and fintech.
- Currently architects a public-sector generative AI platform, with experience in Java, Spring Boot, Python, TypeScript, and React.
- Experienced across AWS, Azure, and GCP, including Kubernetes on EKS, AKS, and GKE, as well as Oracle, PostgreSQL, and SQL Server.
- Applies architecture practices including ADRs, C4 models, trade-off analysis, TOGAF, and BPMN.
- Experienced in regulated environments, disaster recovery architecture, OWASP, NIST, and ISO 27001, as well as engineering metrics and team mentoring.

TECHNICAL SKILLS

Main Technical Skills	Java, Python, TypeScript, Kotlin, Swift
Programming Languages	Java, Kotlin, Python, Swift, TypeScript
AI & Machine Learning	AI, Azure AI, Azure OpenAI, CrewAI, Faiss, GenAI, LangChain, LangGraph, LLM, ollama, Pinecone, RAG
Python Frameworks	FastAPI
Mobile Frameworks and Libraries	Flutter
Android Libraries and Tools	Kotlin
JavaScript Frameworks	Next.js, Node.js, React
Python Libraries and Tools	Pydantic, pytest
JavaScript Libraries and Tools	React Native, React-Saga
Java Frameworks	Spring Boot
Security	AWS Security Groups, ISO 27001, NIST, OWASP
Data Analysis and Visualization Technologies	Big data, Business Intelligence (BI), Kafka Connect, ML

Databases & Management Systems / ORM	AWS ElasticSearch, ChromaDB, Elasticsearch, Firebase, Microsoft SQL Server, MongoDB, OpenSearch, Oracle Database, PL/SQL, PostgreSQL, Redis, Snowflake
Cloud Platforms, Services & Computing	AWS, Azure, Firebase, GCP, Heroku
Amazon Web Services	AWS Cloudformation, AWS EBS, AWS ElasticSearch, AWS S3 MinIO, AWS Security Groups, AWS SNS, AWS SQS
Azure Cloud Services	Azure AI, Azure Blueprints, Azure DevOps, Azure OpenAI, Azure Service Bus
Google Cloud Platform	Google BigQuery, Google Kubernetes Engine (GKE)
Platforms	Android, Dynatrace, ERP, Microsoft, RPA
Tools for Big Data	Apache Iceberg
QA, Test Automation, Security	Apache Maven, Jest, pytest, Unit Testing
SDK / API and Integrations	API, Facebook API, Facebook SDK, FastAPI, OAuth
Methodologies, Paradigms and Patterns	BPMN, DDD, IaC, REST, Scrum
Deployment, CI/CD & Administration	CI/CD, GitOps, Jenkins, JFrog, New Relic, SonarQube
Virtualization, Containers and Orchestration	Docker, Kubernetes
Logging and Monitoring	Grafana
Operating Systems	iOS
Message/Queue/Task Brokers	Kafka, RabbitMQ
UI/UX/Wireframing	UI/UX
Other Technical Skills	Agentic AI, AutoGen, BIAN, Bitrise, C4 Model, Cipher, GetX, Google Cloud Apigee, Google Kubernetes Engine, Kong, LLMs, Milvus, PaaS, SAP ERP, TOGAF, Trino

WORK EXPERIENCE

Solutions & AI Architect/Staff Engineer, ATI Pernambuco (Public-sector Generative AI Platform Modernization)

Duration: Jan. 2026 - Sep. 2026

Summary: Modernization and architecture ownership of Retrieval-Augmented Generation (RAG) services on ATI's corporate AI platform, focusing on document analysis for public processes using advanced AI technologies.



Responsibilities:

- Own architecture and modernization of RAG services on ATI's corporate AI platform (FastAPI, LangChain, Ollama, Milvus, MinIO, PostgreSQL): prompt engineering, observability, resilience, quality.
- Designed and implemented RAG pipelines for document analysis of public processes, Terms of Reference and Preliminary Technical Studies, with embeddings, vector search and AI agents.
- Standardized prompt engineering, Pydantic structured-output validation and LLM context optimization; implemented resilience for distributed failures (Tenacity, retry policies, timeout management).
- Evolve Python microservices integrated with Java/Spring Boot; define quality standards and technical governance (Pytest coverage, architecture/PR reviews); drive agentic AI and AI-assisted engineering adoption

Technologies: FastAPI, LangChain, Ollama, Milvus, MinIO, PostgreSQL, Python, Java, Spring Boot, Pydantic, Tenacity.

Senior Solutions Architect, Tribunal de Justiça da Bahia (Bahia State Court of Justice)

Duration: Dec. 2024 - Dec. 2025

Summary: A state judicial institution responsible for administering justice and overseeing court proceedings. It handles civil, criminal, and other legal cases, manages judicial processes, and provides services related to court records and case administration. Its operations include digital systems for case management and access to judicial information.

Responsibilities:

- Led the full software development lifecycle, from conception and documentation to implementation of robust, scalable solutions, modernizing systems for the Court and Brazil's National Council of Justice (CNJ).
- Defined Architecture Decision Records (ADRs), analyzed technical trade-offs and drove architecture governance aligned with business; documented solutions with C4 Model, blueprints and BPMN.
- Led projects on React, Node.js, Java/Spring Boot and Swift; implemented CI/CD pipelines (Docker, Kubernetes, Maven, JFrog) and RPA/Python automation that improved operational efficiency of internal processes.

Technologies: React, Node.js, Java/Spring Boot, Swift, CI/CD, Docker, Kubernetes, Maven, JFrog, RPA, Python.

Solutions Architect, Jeitto (Cloud Financial Solution on GCP)

Duration: Jan. 2024 - Sep. 2024

Summary: A financial technology company providing digital credit and payment services through a mobile application. The platform supports credit assessment, bill payments, money transfers, digital wallet services, and online purchases. It uses data analytics and AI-based models for credit risk assessment and fraud prevention.

Responsibilities:

- Designed a cloud financial solution on GCP (PaaS, CaaS, GKE, BigQuery) with Apigee integrations and Snowflake data analysis; built disaster recovery (DR) models for Azure.



- Contributed to decisions on cloud-native architecture, resilience, observability and IaC; applied orchestrated Saga and DDD alongside a legacy monolith; documented in C4/ BPMN with BIAN and TOGAF.
- Supported the rollout of SonarQube, New Relic and Kong for delivery quality and quality-gate monitoring, and helped the finance team apply best practices to evolve internal products.

Technologies: Google Cloud Platform (PaaS, CaaS, GKE, BigQuery), Apigee, Snowflake, Azure, SonarQube, New Relic, Kong, Saga, DDD, C4 Model, BPMN, BIAN, TOGAF.

Solutions Architect, Banco Rendimento (Modular Architecture for Legacy and Hybrid Mobile Apps)

Duration: Apr. 2022 - Jun. 2023

Summary: A banking and financial services institution providing foreign exchange, credit, investment, and payment services. It supports domestic and international transfers, business financing, trade finance, and digital payment integrations through APIs.

Responsibilities:

- Defined a modular architecture for legacy native and new hybrid mobile apps (Flutter, React Native), promoting reuse and modularization while contributing hands-on.
- Worked across squads on architectural standards, observability and platform evolution, including AWS cost analysis for Saga-based microservices (orchestrated and choreographed).
- Implemented Dynatrace logging, feature toggles, device fingerprinting and tokenization; improved CI/CD with automated tests (Jenkins, Bitrise, Azure DevOps) and SonarQube

Technologies: Flutter (BLoC, Dio, GetX, Firebase, secure storage), React Native, Next.js, Jest, AWS, Dynatrace, SonarQube, Jenkins, Bitrise, Azure DevOps.

Application Architect, Banco Bradesco (Business Customer Product and Fraud Prevention)

Duration: Feb. 2021 - Mar. 2022

Summary: A banking and financial services institution providing retail, corporate, and investment banking services. It offers accounts, loans, credit cards, insurance, investment products, and payment services. Its digital platforms support online banking, transactions, and customer account management.

Responsibilities:

- Developed improvements for a new Bradesco product for business (legal-entity) customers and supported fraud-prevention consulting (3-person squad, 2-week Scrum sprints).
- Built new modules while refactoring a monolithic app to market best practices, applying DDD and TOGAF and weighing architectural trade-offs against product goals; modular native Android (Kotlin) and React Native.
- Implemented Man-in-the-Middle security testing, encryption (Cipher), tokenization and elevated protection of sensitive data, plus Dynatrace logging and unit tests.

Technologies: Kotlin, React Native, DDD, TOGAF, Dynatrace, Cipher encryption, Unit Testing.



Architect/Mobile Specialist, Meta (Node.js REST Services and Mobile Connectivity for Vehicle Trackers)

Duration: Oct. 2019 - Jan. 2021

Summary: Architected and developed microservices and mobile solutions for vehicle tracking and data visualization, improving development processes and client satisfaction.

Responsibilities:

- Architected and built Node.js REST services (microservices.io patterns) on Kubernetes/Docker with PostgreSQL and Kafka/Kafka Connect on Azure; enriched data for Grafana dashboards.
- Improved development through automated CI/CD builds and new Kotlin mobile patterns; built native Android (Java 8) Bluetooth/REST connectivity to vehicle trackers; fixed critical bugs for large Michelin group clients.
- Prepared action plans with the board and presented results to leadership; 7-person squad, 2-week sprints.

Technologies: Node.js, Kubernetes, Docker, PostgreSQL, Kafka, Kafka Connect, Azure, Grafana, Kotlin, Java 8, CI/CD

Systems Architect/Mobile Engineer, BRQ Digital Solution (Bradesco Next Banking App Development and Maintenance)

Duration: Jan. 2017 - Aug. 2019

Summary: Developed and maintained Bradesco's Next banking app for Android and iOS, leading the sustaining team and integrating new partner SDKs.

Responsibilities:

- Developed and maintained Android and iOS banking applications.
- Led sustaining team ensuring app stability and improvements.
- Built Kotlin proof-of-concept apps for partner integrations.
- Integrated AppsFlyer, Facebook, and Crashlytics SDKs.
- Created in-house components and standardized UI/UX.

Technologies: Android (Java), iOS (Swift 4), Kotlin, AppsFlyer, Facebook SDK, Crashlytics.

Solutions Architect/Director, Marne Consultoria (Integrated Mobile, Web and Desktop Solutions)

Duration: Mar. 2014 - Oct. 2016

Summary: Directed company delivering integrated solutions across mobile, web, and desktop platforms, including publishing apps and building secure REST services.

Responsibilities:

- Directed company operations and solution delivery.
- Published Android and iOS applications.
- Built Java/Spring Boot REST services with Spring Security and OAuth2.
- Deployed services on AWS, Heroku, and Elastic Beanstalk.

Technologies: Java, Spring Boot, Spring Security, OAuth2, AWS, Heroku, Elastic Beanstalk, Android, iOS.



Mid-level Systems Analyst, AIS Tecnologia (ERP/SPED Fiscal Solutions and Test Routines)

Duration: Oct. 2012 - Feb. 2014

Summary: Worked on ERP and SPED Fiscal solutions including development and testing routines to ensure software quality and compliance.

Responsibilities:

- Developed ERP and SPED Fiscal solutions.
- Created and executed test routines.

Technologies: ERP, SPED.

Developer Analyst, GVT (Telecom Internal Systems and Business Rules)

Duration: Apr. 2011 - Sep. 2012

Summary: Developed and maintained internal telecom systems and business rules to support operational processes.

Responsibilities:

- Developed telecom internal systems.
- Implemented business rules.

Technologies: PL/SQL, BI.

Developer Analyst, EBS Sistemas (HR Module Development for Cordilheira System)

Duration: Jan. 2010 - Mar. 2011

Summary: Developed the Human Resources module for the Cordilheira system, enhancing HR management capabilities.

Responsibilities:

- Developed HR module for Cordilheira system.

Technologies: ERP, SAP ERP, Microsoft SQL Server.

Development Manager, S&S Informática (Team Coordination and Information Security)

Duration: Oct. 2007 - Dec. 2010

Summary: Managed development teams and coordinated information security initiatives to ensure project delivery and data protection.

Responsibilities:

- Coordinated development teams.
- Managed information security efforts.



IT Unit Director/Programmer, Procuradoria Geral do Estado (IT Unit Management and Programming)

Duration: Jun. 2003 - Jan. 2007

Summary: Directed IT unit and performed programming tasks to support organizational IT needs.

Responsibilities:

- Directed IT unit.
- Performed programming duties.

Programmer, Connect Soft, Corporação Christus, Prefeitura Municipal de Fortaleza (Programming Roles)

Duration: Nov. 1999 - Mar. 2003

Summary: Performed programming tasks across multiple organizations supporting various software development needs.

Responsibilities:

- Performed programming tasks.

EDUCATION

- MBA in Software Engineering · Information Technology Management

CERTIFICATION

- **AWS training courses: Exam Readiness - ML Specialty**
Jun. 2024
- **AWS training courses: Cloud Practitioner Essentials**
Sep. 2024
- **LinkedIn Learning course: IA-900 - Document Intelligence and Knowledge Mining, Azure AI**
Jul. 2025
- **Microsoft official training: AZ-900 (KA Solution), AZ-305, SC-200**
- **Other training: Kubernetes/Rancher/Serverless on AWS, CI/CD automation, Data Engineering (Big Data)**

