Jacques D. F. de Sá

Profile

Steering Banco Itaú's IT initiatives, my expertise in Software & Data Engineering and Cloud Solutions has catalyzed transformative projects. Adept at leveraging emerging AI tools, like GitHub Copilot Chats, I've facilitated architectural advancements and effective ETL pipeline construction:

- ETL pipelines to attend the OKRs related to data democratization
- Refactor of critical legacy applications (VB6, Mainframe, etc) to a modern platform

As a Staff Engineer & Chapter Lead, I inspired and managed a robust team, fostering a culture of technical excellence and strategic foresight. By mentoring AWS certifications, and ministering Observability and Apache Spark workshops (among others), I've raised the team's technical bar, fortified my community's capabilities, and contributed to the strategic goals in cloud migration and platform services.

Proficiency:

- Languages and frameworks: Java/Spring, .NET Core/Framework, Python, Node.JS, TypeScript
- AWS ecosystem: ECS, Lambda, Glue, EMR, Step Functions, DynamoDB, Aurora/RDS (MySQL, PostgreSQL), SNS/SQS, MSK/Kinesis, API Gateway, ElastiCache (Redis)
- IaC: Terraform, AWS CloudFormation
- Architecture: Event-driven, Microservices, etc.
- App Integration: Kafka, MQ, REST, gRPC
- Data engineering: Apache Spark (PySpark & Scala), Hadoop

Recent certifications:

- AWS Solutions Architecture Professional (SAP-C02)
- AWS Data Engineer Associate (DEA-C01)

Employment History

Staff Engineer, Banco Itaú, São Paulo

AUGUST 2023

Main activities:

- Design and implement event-driven microservices architecture, enhancing system responsiveness and scalability
- Engage in hands-on development on AWS, building robust applications and ensuring high performance and maintainability.
- Develop and optimize ETL data pipelines, significantly improving data processing efficiency and analytics capabilities
- Lead the community through the modernization journey to refactor the legacy loans and financing core platform to AWS.
- Conducted workshops on Apache Spark and Observability, fostering knowledge sharing and skill development within the community
- Support peer managers in hiring professionals by preparing cases and doing technical assessments of the candidates.

Outcomes:

- Played a significant role in meeting the OKRs of data democratization

Details

São Paulo
Brazil
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Skills

Amazon Web Services

Java/Spring

.NET

Microservices

Python

Solutions Architecture

Apache Spark

DynamoDB

Languages

English

- Enhanced development efficiency, thus accelerating modernization initiatives, by leveraging Gen AI (Github Copilot) for rewriting legacy code.
- Formed 8+ new AWS-certified professionals in Solutions Architect Associate and Professional levels, having more prepared dealing with AWS platform

Main technical resources:

- Microservices: ECS, API Gateway, DynamoDB, RDS/PostgreSQL, SQS/SNS, Lambda, Java/Spring + Maven + JUnit, Python
- IPC: Kafka, SQS/SNS, EventBridge, REST/gRPC
- Data engineering: Kinesis/Firehose, AWS Glue, EMR, Apache Spark, Athena/Presto
- Infrastructure: Terraform & CloudFormation
- Observability: CloudWatch, Grafana, DataDog

Chapter Lead, Banco Itaú, São Paulo

NOVEMBER 2021 — OCTOBER 2023

In charge of 25 people, divided into three squads created from scratch, and responsible for keeping the platform of loans and financing in foreign currency products.

Day-to-day responsibilities:

- Support the team in architectural design and decisions with a hands-on approach.
- Discuss architectural concerns, like separation of concerns, platform responsibilities, and engineering solutions with architects.
- Negotiating with product managers and translating product strategies into engineering backlog
- Reverse engineering to better direct the teams in initiatives related to the platform modernization.
- Hiring, evaluating, and mentoring
- Negotiation with outsourcing companies about professionals and technical systems
- Keeping track of KPIs and meeting OKRs
- Technical assessment of the team skills and deliveries
- Removing team obstacles

Outcomes:

- Delivery of strategic and regulatory initiatives for the company, avoiding financial penalties
- Reduction of RPO / RTO / MTTR by working prioritization side-by-side with the teams and product stakeholders
- Reduction of 60 incidents that were open two years before

Sr. Software Engineer | Tech Leader, Banco Itaú, São Paulo

MAY 2019 — NOVEMBER 2021

Main activities:

- Designed and implemented event-driven microservices-based solutions to be run on OpenShift and AWS
- Led the team throughout the development and guided them on using AWS services and software engineering best practices, contributing to the team's growth and development efficiency.
- Enriched the product backlog and played an important role in prioritization
- Proposed technical solutions aligned with architecture and SRE concerns, as well as cost optimization and development best practices on the cloud
- Collaborated with managers to assertive decisions making about strategic goals

Outcomes:

- Delivered regulatory demands, with tight deadlines, over a modern platform (AWS) instead of on legacy systems, strongly contributing to modernization OKRs and strategic goals
- Raised the bar concerning AWS platform knowledge in the community
- Lowered AWS cost by conducting cost assessments on products running on AWS across the community

Main technical resources: ECS/Docker, API Gateway, S3, DynamoDB, SQS/SNS, Elasticache for Redis, Lambda, CodePipeline, CloudFormation; Java/Spring + Maven + JUnit, Python, Node.Js, Kafka, MySQL / SQL Server, JMeter

Programmer Analyst, Iteris Consultoria & Software, São Paulo

MAY 2015 — MAY 2019

Initiatives at Rede client:

- Migrated the customer legacy SharePoint portal to the AWS. Managed to capture all relevant data related to sales, payments, and charges transactions from Mainframe, to be processed and stored on AWS
- Improved web interface usability and backed applications, moving from a monolithic SharePoint environment to a microservices architecture

Outcomes:

- Reduced dramatically the response time of the legacy customer portal
- Reduced relevant costs with Help Desk support by reducing the number of calls
- Improved software development efficiency by minimizing the interdependency with the legacy platform environment

Technical resources: AWS Elastic Beanstalk, API Gateway, S3, DynamoDB, Java/Spring + Maven + JUnit, Angular5 with TypeScript, NodeJS, ASP.NET MVC, jQuery, MySQL, SQL Server 2012, Docker, Redis, SharePoint 2010/2013

Programmer, Thomson Routers, São Paulo

MAY 2012 — MAY 2015

- Developed a workflow portal for legal demands orchestration, as part of the customer BNDES modernization initiative, integrating with SAP for financial data
- Designed the Payment module for the customer BRF S.A., with income tax calculations and monetary provisioning report
- Utilized C# .NET Framework with WebForms / MVC, ASP classic, TFS, and Oracle / SQL Server databases

Education

Data Engineering (Postgraduate Program), Purdue University

APRIL 2022 — NOVEMBER 2022

Systems Analysis and Development, Fatec, Carapicuiba (São Paulo)

FEBRUARY 2014 — DECEMBER 2015