

JOÃO PEDRO SILVA

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SENIOR FULL STACK SOFTWARE ENGINEER

Full Stack Software Engineer with more than 6 years of experience developing web applications, APIs, microservices, and cloud-based systems across fintech, healthcare, wellness, corporate incentives, and interactive platforms. Specialized in TypeScript, Node.js, NestJS, and React, with experience building business-critical platforms serving 400,000+ registered users and 450+ B2B companies. Contributed to financial systems managing 300,000+ cards and processing 500,000+ transactions across PIX, Boletão, and TED. Experienced across the full software development lifecycle, including architecture, development, testing, CI/CD, deployment, performance optimization, and production observability. Additional experience with C#/.NET and Python/Django/FastAPI.

- Software Architecture and System Design • Microservices Architecture • Performance Optimization and Scalability
- API Design and Integration • Cloud Infrastructure and Deployment • High Availability and Fault Tolerance Systems

Languages: TypeScript, JavaScript, C#, Python

Web: HTML5, CSS3, Ant Design, Tailwind, React.js

Web Services: RESTful APIs, Third-Party API Integration, Webhook, Websockets

Web/App Servers: Node.js, IIS, Nginx

Frameworks: NestJS, .NET, Entity Framework, Django, FastAPI

Databases: PostgreSQL, MongoDB, Redis

Design Patterns: Dependency Injection, Repository Pattern, Factory Method, Adapter Pattern, MVC

SDLC: Agile Software Development, Scrum, Kanban

Tools: Git, Docker, Postman, GitHub Actions, Azure DevOps, Google Antigravity, OpenAI Codex, Prisma ORM, OpenAI API, Azure OpenAI Service

Platforms: Microsoft Azure, AWS, Linux, Windows

CAREER NOTE: Completed on-campus studies and currently taking distance education courses to complete a **Master's Degree in Computer Science** (Available for full-time, W-2 employment).

PROFESSIONAL EXPERIENCE

HUB4PAY, São Paulo, Brazil • 06/2024 – 01/2026

Hub4Pay is a Brazilian fintech and payment technology company providing digital financial solutions for promotional campaigns, incentives, rewards, and B2B payment operations.

Senior Software Engineer / Tech Leader

- Led the technical evolution and scaling of LinkPremio Card using NestJS, ReactJS, PostgreSQL, Prisma, Redis, and Azure, supporting 400,000+ registered users across rewards, incentives, and B2B financial operations.
- Engineered high-throughput payment workflows with NestJS microservices, Redis queues/workers, and partner APIs for PIX, boletos, TED transfers, and virtual cards.
- Optimized PostgreSQL/Prisma performance and Redis caching while building reconciliation workers to synchronize financial balances, supporting 500,000+ transactions across 450+ B2B companies with zero data loss.
- Designed RESTful APIs and relational models for account, balance, transaction, card, and payment-status management, improving reliability across core financial workflows.
- Built and enhanced React/TypeScript administrative and participant portals for fund management, campaign operations, account administration, transaction visibility, and support.
- Supported the operation of 300,000+ cards through external card-provider APIs and asynchronous processing workflows, improving card lifecycle management, financial data consistency, and integration reliability.
- Optimized production operations on Microsoft Azure by leading incident response, analyzing cross-service failures through application logs, and deploying fixes for critical payment and card-processing workflows.
- Contributed to technical leadership responsibilities through architecture decisions, code reviews, security standards, and engineering practices as LinkPremio Card evolved into Hub4Pay's flagship fintech product.

Technologies Used: JavaScript, TypeScript, Node.js, ReactJS, Prisma, PostgreSQL, MongoDB, Redis, Microsoft Azure, Azure App Services, Azure Blob Storage, Azure Key Vault, GitHub Actions, Postman, HTML, CSS, Ant Design, Tailwind.

LINO SISTEMAS, São Paulo, Brazil • 07/2023 – 06/2024

Lino Sistemas is a Brazilian IT consulting and software development company specializing in custom digital platforms, enterprise systems, integrations, and scalable technology solutions across industries.

Full Stack Developer

- Engineered and scaled HubPontos for Hub4Pay using ReactJS, NestJS, Prisma, PostgreSQL, and Redis, supporting 33,000+ active accounts, 3,000+ reward redemptions, and a catalog of more than 2,500 products for enterprises including Samsung, Zurich, Philips, and Saint-Gobain.
- Maintained Tarsilla for Crivelli Advogados using .NET, C#, and custom anti-leak watermarking mechanisms, supporting the secure management of 50,000+ legal cases and 100,000+ sensitive documents.
- Developed a context-aware healthcare assistant using Azure OpenAI, integrating participant and appointment data to provide personalized consultation and symptom guidance while directing users to licensed medical professionals.
- Configured Azure infrastructure using App Services, Blob Storage, managed databases, and Key Vault, improving deployment consistency, secure configuration, and maintainability across production environments.
- Automated application delivery using GitHub Actions and Microsoft Azure deployment workflows, reducing manual release steps and improving consistency between development and production environments.
- Served as founding engineer and technical architect for LinkPremio Card, designing the initial platform with NestJS, ReactJS, PostgreSQL, Prisma, Redis, and Azure, which later scaled to 450+ B2B companies, 122,000+ active users, and 100,000+ virtual cards.

Technologies Used: C#, .NET, ASP.NET, EntityFramework, TypeScript, Node.js, NestJS, ReactJS, PostgreSQL, MySQL, Redis, Azure OpenAI, Azure App Services, Azure Blob Storage, Postman, HTML, CSS, Ant Design, Tailwind.

TOTVS, São Paulo, Brazil • 07/2021 – 12/2022

TOTVS is Brazil's leading technology company, providing enterprise software, ERP, and financial technology solutions to 70,000+ businesses across Latin America.

Software Development Analyst II

- Developed RESTful APIs for TOTVS Pagamento Instantâneo using C#, .NET, Python, and Flask, enabling enterprise customers to process PIX payments directly through integrated business management systems.
- Engineered backend services and microservices using C#, .NET, Python, and Flask for real-time payment workflows, improving transaction reliability and communication between TOTVS systems and external financial services.
- Integrated third-party payment providers through RESTful APIs and secure service-to-service communication, supporting low-latency PIX processing, payment status updates, and automated financial workflows.
- Implemented unit and integration tests using xUnit for .NET payment APIs and backend services, improving code reliability and reducing regression risks across financial transaction workflows.
- Applied secure API design, input validation, controlled access, and protected configuration practices to safeguard sensitive payment information across financial integrations.
- Collaborated with cross-functional teams using Scrum to deliver iterative improvements to TOTVS Pagamento Instantâneo and related Techfin payment features.

Technologies Used: C#, .NET, Entity Framework, Python, Flask, PostgreSQL, Azure DevOps, Google Cloud Platform, HTML, CSS, Postman, xUnit.

MUDE WELLNESS MEDIA, Rio de Janeiro, Brazil • 02/2020 – 07/2021

Mude Wellness Media is a Fitness-tech and wellness media company connecting people, brands, and cities through outdoor wellness spaces, digital fitness content, and mobile experiences.

Full Stack Developer

- Designed and maintained RESTful APIs for the Mude and Mude Coach mobile applications using Python, Django, and Django REST Framework, improving backend reliability for fitness-tech and wellness platform integrations.
- Developed internal instructor management features using Svelte, ReactJS, and JavaScript, enabling class scheduling, media uploads, and content administration, resulting in a 40% improvement in instructor onboarding efficiency.
- Optimized live and on-demand audio/video streaming integrations across Django-based backend services and ReactJS/Svelte interfaces, improving media playback and delivery across web and mobile wellness experiences.
- Integrated mobile app workflows with backend services using Django REST Framework and PostgreSQL, enhancing the reliability of user interactions across Mude's public wellness stations.
- Implemented database models and queries in PostgreSQL to support class scheduling, media management, and user interaction workflows, improving data consistency across admin and mobile platforms.

Technologies Used: Python, Django, Django REST Framework, JavaScript, ReactJS, Svelte, PostgreSQL, HTML, CSS, Postman.

INDEPENDENT CONTRACTOR EXPERIENCE

FicTix, Rio de Janeiro, Brazil • 10/2020 – 07/2021

FicTix is a Brazilian innovation lab creating phygital solutions for retail, events, and brand activations through integrated software, hardware, design, and data.

Full Stack Developer

- Built NeoStudio, Reserva's 3D sneaker customization platform, by developing the ReactJS/Three.js front end and Python/Django RESTful APIs, enabling immersive product personalization and seamless integration of product and configuration data across multiple digital experiences.
- Created interactive digital kiosks using Unity, C#, and Flutter Desktop for brands including Hortifruti, transforming marketing concepts into touchscreen experiences deployed in physical retail environments.
- Developed backend features for Kuke using Python and Django REST Framework, building RESTful APIs for subscription-based meal planning, customizable meal selections, and ingredient fulfillment workflows.
- Deployed application services on AWS EC2 and administered PostgreSQL databases through AWS RDS, providing reliable cloud hosting and centralized data persistence for multiple client projects.
- Developed a web-based store management platform for L'Oréal Paris using ReactJS, Python, Django, and Django REST Framework, centralizing store operations and data management.
- Integrated web applications and physical digital-kiosk experiences using REST APIs, Unity, Flutter Desktop, and web front-end technologies, helping FicTix deliver connected phygital experiences across simultaneous client projects.

Technologies Used: C#, Python, JavaScript, Dart, ReactJS, Three.js, Django, Unity, Flutter Desktop, PostgreSQL, AWS EC2, AWS RDS, Git, HTML, CSS, Postman.

ACADEMIC PROJECTS

Maharishi International University (2026)

- **Pet Care Tracker:** Developed a full-stack pet care management application for creating pet profiles and tracking feeding, walking, grooming, medication, and veterinary appointments. Built the frontend with ReactJS, React Router, Jotai, and Tailwind CSS, and developed RESTful APIs with Node.js, Express, and TypeScript. Implemented Zod validation, bcrypt-protected operations, JSON-based persistence, atomic file writes, and a modular backend using controllers and repositories.
 - **Kim Flights:** Developed a full-stack academic flight aggregation platform inspired by Kayak, enabling users to search, view, and compare flight options through a centralized interface. Built RESTful backend services with Java and Spring Boot, and developed the frontend using ReactJS, TypeScript, HTML, CSS, and Tailwind. Implemented flight search workflows based on travel dates, origins, and destinations, with separate frontend, business logic, and data-access layers.
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PERSONAL PROJECTS

Terraria Zombie Server (2025): Developed a custom multiplayer Zombies game mode for Terraria using C#, .NET, and the TShock API, featuring round-based gameplay, score tracking, custom commands, and real-time player feedback. Implemented match management, NPC-based scoring, server events, permissions, and a real-time scoreboard using SmartTextMessage. Integrated player login and chat hooks while resolving synchronization and timer issues to maintain accurate match and scoreboard updates.

EDUCATION

Master of Science in Computer Science

(In progress via distance education; expected completion 10/2028)

Maharishi International University, Fairfield, Iowa

Key Courses: Software Engineering, Web Application Development, Modern Web Applications

Bacharel in Computer Engineering

Instituto Infnet, Rio de Janeiro, Rio de Janeiro, Brazil (10/2023)

Diploma in Systems Analysis and Development

Instituto Infnet, Rio de Janeiro, Rio de Janeiro, Brazil (12/2020)

CERTIFICATIONS

[Scrum Foundation Professional Certificate](#)