

MATÍAS FERNÁNDEZ

SENIOR FULL-STACK ENGINEER · AI SYSTEMS · NODE.JS · PYTHON · RAG

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PROFILE

Senior Full-Stack Engineer with more than ten years of experience, currently building LLM-based products for a healthcare client under HIPAA obligations. I work across RAG pipelines (ingestion, chunking, embeddings, vector retrieval, and source attribution), LangChain and LangGraph workflows with tool calling, and the Node.js and Python/FastAPI services, queues, and streaming interfaces around them, shipped with Docker on Azure and AWS. I treat prompt-injection defenses, content filtering, usage and cost monitoring, and maintainability as product requirements, and lead through implementation, code reviews, and architecture documentation.

EXPERIENCE

Argeniss Software

Senior Full-Stack Engineer

Feb 2022 — Present

Client: Amplity Health

- Lead the React/Next.js frontend of AI Studio, an Azure OpenAI product running GPT-5, and remain its primary hands-on frontend contributor, with targeted work across its .NET and Azure Functions components, Python document processing, Pinecone retrieval, SignalR streaming, Azure SQL, and Logic Apps. More than 1,000 documents have completed the processing pipeline, which is designed against a sub-two-second time-to-first-token target.
- Build LangChain and LangGraph workflows with tool calling in AI Studio and the Website Chatbot, orchestrating multi-step interactions between Azure OpenAI models, retrieval, and application tools.
- Share ownership of an inherited Website Chatbot and evolve it end to end: React/Vite admin, embeddable widget with local persistence and cross-tab sync, Python/FastAPI backend, PostgreSQL, an Azure Functions crawler on Queue Storage with realtime progress, PDF/TXT/DOCX ingestion, chunking, embeddings and Pinecone scoping, source attribution, content filtering and prompt-injection defenses, and usage and cost monitoring on Docker and Azure Container Apps.
- Deliver AI features under HIPAA obligations for a healthcare client: completed compliance training, applied restrictions on which data may reach AI services, and worked with Entra ID access controls and audit logging around sensitive data.
- Define technical conventions, perform code reviews, maintain architecture documentation, and improve containerized Azure delivery with ACR, Azure DevOps YAML pipelines, Bicep, and multi-stage Docker builds.

Endava

Full-Stack Engineer

May 2021 — Feb 2022

Client: Bloomberg LP · Workpaper

- Participated in the beta launch and a React/Redux/TypeScript UI refactor, while contributing almost equally to Node.js services and PostgreSQL-backed APIs.
- Built complex forms with TypeScript generics, Zod, and optimistic updates; covered the product with Playwright and React Testing Library; worked on Web Vitals with manual Lighthouse audits.
- Worked directly with Docker, AWS Lambda, API Gateway, DynamoDB, and ECS, inside a multi-account setup with IAM and CloudFormation.
- Mentored and reviewed code within a five-developer team as collaborative technical leadership.

Hexacta / GlobalLogic

Full-Stack Engineer

Jan 2019 — May 2021

TechInsights · BA147 · SUACI

- Participated in the Angular 7-to-12 migration and in migrating Java services to Node.js/TypeScript serverless services on AWS Lambda, API Gateway, and DynamoDB; the team migration reduced infrastructure costs by approximately 30%.
- Shared technical coordination of UI changes with two other developers, built interactive analytics widgets, and worked with VPC, S3, IAM, CloudWatch, Terraform, and blue-green deployments.
- Built the BA147 mobile application with Ionic 4, Angular, and TypeScript — offline synchronization, push notifications, and USIG map integration — took part hands-on in the Google Play publication process, and added features and fixes to the Java/Spring Boot backend of the SUACI backoffice.

Government of Entre Ríos

Software Engineer

Nov 2016 — Jan 2019

Public-sector platforms

- Worked on an Inter-American Development Bank-funded Property Registry platform built with PHP, jQuery, and Oracle, plus internal tools and sites with React, a separate React Native application, and a teacher-training app with a Laravel backend and Vue.js.

- Automated ETL processes with Node.js including validation, transformation, deduplication, alerts, and automatic retries.
- Worked with RBAC, action auditing and traceability, and formal compliance requirements across provincial systems.

Genosha

Software Engineer

Jun 2016 — Dec 2016

Video-generation platform

- Built a viral-video generation and rendering platform with AngularJS, Node.js, Docker, and AWS ECS, using FFmpeg as the main processing tool with encoding optimizations for 720p output.
- Integrated the Facebook Graph API so users could sign in and provide the inputs needed to generate their video.

STACK

Applied AI: Azure OpenAI (GPT-5) · LangChain · LangGraph · Tool calling / agents · RAG · Pinecone · Embeddings · PDF/DOCX/TXT ingestion · Source attribution · Content filtering & prompt-injection defenses · Usage & cost monitoring

Backend & APIs: Python · FastAPI · Node.js · .NET 8 · ASP.NET Core · Clean Architecture · Azure Functions · Java · Spring Boot · Zod · FluentValidation

Realtime & data: SignalR · Azure Web PubSub · WebSockets · Azure Service Bus · AWS SQS · RabbitMQ · PostgreSQL · Azure SQL · MongoDB · DynamoDB · Oracle · Prisma · ExcelJS · SheetJS

Cloud & delivery: Azure App Service · Container Apps · ACR · Azure DevOps YAML · Bicep · Entra ID / MSAL · AWS Lambda · API Gateway · ECS · S3 · IAM · CloudFormation · Docker · Kubernetes (AKS · EKS) · Terraform

Frontend: React 19 · Next.js 15 App Router · TypeScript strict · TanStack React Query · Redux · Fluent UI · react-window · Angular · Vue · Ionic · React Native

Quality: Vitest · Playwright · React Testing Library · Cypress · xUnit · Web Vitals · Code reviews · Architecture docs

EDUCATION

Analyst in Applied Informatics

Universidad Nacional del Litoral

LANGUAGES

Spanish — Native

English — B2, advanced professional communication