

Alejandro Sánchez Yalí

Full Stack Software Developer | AI/ML | Node.js | Python



✉ asanchezyali@gmail.com | **in** [asanchezyali](#) | [asanchezyali](#) | [asanchezyali.com](#)

SUMMARY

Full Stack Developer with 5+ years of experience building robust, scalable applications across frontend and backend. Specialized in Node.js, Python, and modern JavaScript/TypeScript frameworks. Strong background in AI/ML integration, cloud infrastructure, and blockchain. Proven ability to deliver production-ready APIs, integrate LLMs, and lead technical teams in multidisciplinary environments.

TECHNICAL SKILLS

- **Languages:** JavaScript (advanced, 5+ years), TypeScript (advanced, 5+ years), Python (7+ years), Rust, C, SQL
- **Frontend:** React.js (6+ years), Next.js (5+ years), TypeScript, Tailwind CSS, Redux, Zustand, Shadcn UI, Ant Design, SASS
- **Backend:** Node.js, Express, NestJS, Django, FastAPI, Flask, RESTful APIs, GraphQL, Microservices
- **AI/ML Integration:** LangChain, LangGraph, LLMs, Whisper, TensorFlow, PyTorch, Scikit-learn
- **Web3/Blockchain:** Web3.js, Ethereum, Solidity, NFT marketplaces
- **Testing:** Vitest, Jest, TDD, Unit/Integration Testing
- **Databases:** PostgreSQL, MongoDB
- **Cloud/DevOps:** AWS, GCP, Docker, GitHub Actions, CI/CD pipelines
- **Software Engineering:** Clean Architecture, SOLID principles, Version Control (Git)

EXPERIENCE

Full Stack Developer

Monadical

Apr 2021 – Aug 2024

Remote Job - Canada/EEUU

- Developed and maintained full-stack applications using Node.js, Express, React, Next.js, and Python (Django, FastAPI)
- Designed and developed RESTful APIs, microservices, and scalable backend systems for data-intensive and AI/ML applications
- Integrated LLMs, LangChain, and Whisper into production environments
- Led frontend architecture, reusable component libraries, and advanced testing strategies (Vitest, Jest, TDD)
- Managed cloud deployments on AWS/GCP using Docker and CI/CD pipelines

Full Stack Developer

BCFort

Aug 2018 – Oct 2020

Medellín, Colombia

- Led development of blockchain solutions with Ethereum, Hyperledger, and NFT marketplaces
- Built decentralized app frontends (React, Web3.js) and implemented smart contracts (Solidity)

- Managed cloud infrastructure (AWS, GCP, IBM Cloud) and analytics for blockchain transactions

Professor

Jan 2010 – Oct 2021

Universidad de Antioquia

Medellín, Colombia

- Taught advanced courses in Machine Learning, Data Science, and Mathematics using Python, NumPy, Pandas, TensorFlow, PyTorch, and Scikit-learn
- Mentored research and student projects in ML, data analysis, and software development

Independent IT Consultant




Aug 2024 – Present

Freelance

Remote

- Delivered end-to-end web applications for business clients, including frontend (React.js, Next.js, TypeScript) and backend (Node.js, FastAPI, Django)
- Developed and deployed solutions for sports club management, medical scheduling, and AI-powered learning platforms
- Integrated LLMs and AI/ML services into production web apps
- Implemented payment integrations, containerization (Docker), and CI/CD pipelines

FEATURED PROJECTS


- [Morpheus – AI Image Generation Platform](#) 
 - Full stack open-source platform for AI image generation using Python, React, and stable diffusion models. Implemented RESTful APIs, ML model integrations, and cloud infrastructure with Docker and AWS.
- [Zippy – Interactive AI Avatar](#) 
 - Built a Next.js-based talking avatar integrating OpenAI API and Azure Cognitive Services. Developed TTS synthesis and seamless backend-frontend integration in Python and TypeScript.
- [Digital Human – Interactive AI Avatar](#) 
 - Engineered a conversational AI system with OpenAI GPT, Whisper, and Eleven Labs. Implemented real-time data processing and lip synchronization.

TECHNICAL WRITING

- [Zero-Shot Text Classification](#) (Sep 2024)
 - Analysis of modern approaches to zero-shot learning in NLP
- [Neural Networks as DAGs of Parameterized Computational Programs](#) (Aug 2024)
 - In-depth exploration of neural networks from a differentiable programming perspective
- [Revolutionizing Animation: Building Digital Humans with LLMs](#) (Jul 2024)
 - Technical guide on implementing AI-powered digital avatars

[View more articles](#) 

CONFERENCE TALKS

- [Scaling Learning Models: Parallelism Strategies in JAX with Flax - PyCon](#)  (2024)
 - Presented strategies for scaling machine learning models using JAX and Flax
 - Discussed parallel computing techniques for efficient model training

EDUCATION

Master in Mathematics <i>Universidad de Antioquia</i>	Aug 2010 - Sep 2013 <i>Medellín, Colombia</i>
B.Sc. in Teaching Mathematics and Physics <i>Universidad de Antioquia</i>	Jan 2004 - Oct 2009 <i>Medellín, Colombia</i>