

# Albert Martinez

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## DESIRED POSITION

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### Software Engineer - Full Stack/AI

My experience architecting full stack applications and building AI tools makes me a strong candidate for small teams and innovative startups focused on iterating quickly while maintaining software quality.

## SKILLS

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- **Backend:** Node.js, Vespa, PostgreSQL, MongoDB, GraphQL, Prisma, tRPC, ETL, Redis
- **Frontend:** TypeScript, Redux, Next.js, Vercel AI SDK, React Server Components
- **ML:** ColBERT Embeddings, Model Fine-Tuning, RAG, OpenAI Function Calling, PyTorch
- **DevOps:** Vercel, AWS, Google Cloud, Docker, Python, Bash
- **Design:** Tailwind, SASS, Atomic Design, Figma

## EXPERIENCE

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### Cloudstore

Full Stack Engineer

Manhattan Beach, CA

Feb. 2023 - Present

- Built ETL pipeline using TypeScript, Google Cloud Functions and Cloud Queues
- Ensured data integrity by making data flow unidirectional and ensuring operations were idempotent
- Doubled sellable inventory by normalizing data from 3 varying APIs into a unified model
- Integrated legacy CRM with ecommerce platform, requiring the normalization of data between MongoDB and PostgreSQL
- Built routes and components for the ecommerce site built on Remix.run
- Used MongoDB change streams to create materialized views of source data
- Implemented image processing pipeline using Google Cloud Storage and Imgix to optimize loading times
- Built data change tracking system to enable analytics on price changes
- Used Puppeteer to scrape manufacturer websites for machine specifications and images
- Implemented semantic search engine using OpenAI embeddings and Qdrant Vector Database
- Helped design prompt used for sentiment analysis of customer responses
- Enabled automatic SMS messaging of product recommendations to customers
- Implemented automatic captcha solving using Puppeteer
- Fine-tuned open source deep learning model for image inpainting using PyTorch
- Used ColBERT embeddings, OpenAI Function Calling and Generative UI to build chatbot search interface

### IndiePrinting

Full Stack Engineer

Los Angeles, CA

Jun. 2019 - Feb. 2023

- Designed and developed frontend with Next.js, TypeScript, and Redux
- Architected and developed backend with Node.js, Express, and MongoDB
- Deployed customized Reaction Commerce (Open Source Ecommerce Platform)

- Extended GraphQL API to support custom pricing algorithm
- Identified and reported bugs to the Reaction Commerce team
- Integrated Sentry for application monitoring and error tracking into the web store
- Created deployment pipeline with AWS Elastic Beanstalk and Docker
- Debugged OAuth 2.0 flows
- Added unit and integration tests for custom pricing algorithm

## IndiePrinting

QA Engineer

Los Angeles, CA  
Jan. 2019 - Jun. 2019

- Responsible for improving and maintaining the quality of the operations web portal
- Tracked down and fixed user interface bugs
- Wrote and tested scripts to automate database operations and tests
- Updated AWS EC2 configurations
- Extended Shopify store using Liquid to enable a custom pricing algorithm
- Tested Shopify and web portal APIs with Postman

## PROJECTS

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### FarmerGPT

RAG, Generative UI, farmergpt.vercel.app

- Built a fully type safe ETL pipeline to ingest data from multiple API's into both Mongo and Postgres
- Embedded all the data we ingested and used the Vercel AI SDK to add a chatbot search interface
- Used Function Calling to extract key requirements from the users query and apply those to filter our database
- Used Vespa to enable searching with Bag of Words and ColBERT Embeddings
- Used the Vercel AI SDK to stream search results to user

## EDUCATION

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### UC Davis

Computer Science, Bachelor of Science

Davis, CA  
2015