

Abdennasser Essati

Senior Full-Stack Developer · AI-Enhanced Product Builder

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Professional Summary

Full-stack software engineer with years of experience designing, building and scaling web & mobile applications using React, Next.js, Node.js, and React-Native.

Passionate about leveraging modern technologies to create robust, user-centric solutions across fintech, travel and enterprise verticals.

AI enthusiast with strong expertise in performance optimization, automated testing, and cross-functional collaboration.

Core Technology Stack

Front-End: React · Next.js · TypeScript · Tailwind CSS · Storybook · Styled-components · Redux · Apollo Client · React-Query

Back-End: Node.js · NestJS · Express · GraphQL · PostgreSQL · MongoDB · Redis · Prisma · Mongoose · TypeORM

AI / Automation: LangGraph · OpenAI · Groq · CopilotKit · n8n · LLaMA

Mobile: React-Native · Expo · Ionic

Cloud & DevOps: GCP (Firestore, Cloud Functions, Signed URLs) · Docker · GitHub Actions · Terraform · Nginx · DigitalOcean · Vultr

Testing: Jest · React Testing Library · Playwright · Cypress · Mocha

Web3: Crypto Wallets · NFT minting/trading · Metamask integration

Relevant Experience

4D — R&D Engineer (Full-Stack + AI)

Rabat - Jan 2023 – Present

Built **AI audit agent** (LangGraph + Groq) that analyses 4D projects and delivers security & performance reports.

Integrated **CopilotKit** into Next.js dashboard for AI-assisted code generation, reducing boiler-plate writing time significantly.

Designed scalable front-end architectures (React, Next.js, TypeScript, Tailwind) consumed by multiple internal tools.

Benchmarked and optimised Node.js micro-services, cutting average response time significantly.

Authored unit, integration and E2E suites (Jest, React-Testing-Library, Playwright) raising code-coverage substantially.

Introduced modular monorepo (Turborepo) enabling devs to work in parallel with **zero merge conflicts**.

SQLI — Front-End Engineer (Design-System Lead)

Rabat - Apr 2022 – Dec 2022

Led company-wide **design-system initiative**: built reusable UI components (TypeScript + Storybook) adopted across major client websites.

Migrated legacy jQuery widgets into React with **backward compatibility**, removing significant unmaintained code.

Standardised design-tokens (colours, typography, spacing) and documented best-practices, shrinking UI delivery cycle significantly.

Conducted weekly knowledge-sharing sessions for engineers, increasing Storybook adoption substantially.

BBLES — Front-End / Web3 Lead

Rabat - Feb 2022 – Apr 2022

Designed front-end architecture for **metaverse + NFT marketplace** (React, Next.js, TypeScript) supporting Metamask, WalletConnect and multi-chain minting.

Implemented performant Web-GL animations and lazy-loading strategies, achieving excellent Lighthouse performance score.

Hired and mentored junior developers; defined Git workflow and CI pipeline (GitHub Actions).

4D — Full-Stack Developer

Rabat - Apr 2020 – Feb 2022

Delivered multiple cross-platform apps (Angular, Ionic, React-Native, Node.js) for telecom and logistics clients.

Refactored Ionic codebase to React-Native, improving start-up time and App-Store rating significantly.

Built GraphQL gateway consolidating multiple REST micro-services, reducing network round-trips.

Weenko — Full-Stack Developer

Remote - Jul 2019 – Apr 2020

Developed secure bill-payment service (Node.js, PostgreSQL) processing high transaction volume with excellent uptime.

Integrated smartphone resale platform with Enterprise Service Bus (ESB) for real-time inventory synchronisation.

Wrote comprehensive unit and E2E tests (Jest, Cypress) leading to significant drop in post-release defects.

Selected Projects & Products

Project	Tech Stack
TriPandoo – AI travel planner	NestJS, TypeScript, OpenAI, Groq, React-Native, Expo, Mapbox, Apple Pay, AWS
4D Audit Tool – AI security auditor	Next.js, TypeScript, LangGraph, CopilotKit, Groq
CareerCard – HR resource platform	React, Tailwind, Node.js, Express, MongoDB, React-Native, Expo
MetaCard – Marketing site + animations	Next.js, TypeScript, FastAPI, GCP
ProcessWatch – Cloud monitoring admin	React (CRA), styled-components, Node.js, Express, MongoDB
ScoCloud Plug-in – VMware vCloud UI	Node.js, React, TypeScript, MongoDB, VMware API
VCloud API Connector – TypeScript SDK	TypeScript, OOP, VMware docs
4D-CLI – Micro-service scaffolding	TypeScript, Commander.js
MBM Church-Givings – Donation platform	Angular, Ionic, Node.js, TypeScript
GAM Payment Ecosystem – Bill-pay & resale	Node.js, Angular, TypeScript, ESB (MuleSoft)

GAM Monitoring – ESB health dashboard	Spring Boot, Angular, TypeScript
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Education

EHTP – École Hassania des Travaux Publics, Casablanca

B.Sc. Electrical Engineering (embedded systems, C/C++) - 2016 – 2019

Self-Directed Learning Path

Continuous up-skilling via OSS contributions, documentation, MOOCs, coding competitions - 2019 – Present

Certifications, Competitions & OSS

MCPC 2018 – ranked **19/84** teams (C/C++) · MCPC 2017 – **29/75** · CODE-IT 2016 – **6/15**

Active maintainer of **4DJS client** and **Wakanda client**.

Contributed to **6+ open-source projects** on GitHub.

Multiple certifications in **web/mobile development** (Udemy, LinkedIn Learning, KnowB4).

Languages

English (full professional), Arabic (native), French (full professional)

Product Links

[TriPandoo Web](#) - [TriPandoo iOS](#) - [TriPandoo Android](#) - [CareerCard Web](#) - [CareerCard iOS](#) - [GitHub](#)