

MARWAN AOUIDA

Senior Software Engineer

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PROFESSIONAL SUMMARY

Senior Solutions Architect with 15+ years of experience delivering full-stack web applications across diverse industries. Specialized in AWS serverless architectures, TypeScript/Node.js, and React. Proven track record shipping AI-powered platforms, automating complex business workflows, and leading end-to-end delivery from architecture through deployment. Active practitioner of AI-assisted development with robust guardrails for quality and security.

TECHNICAL SKILLS

Languages & Frameworks: TypeScript, Node.js, React, JavaScript, C#, ASP.NET MVC

Cloud & Infrastructure: AWS Lambda, API Gateway, S3, RDS, Aurora PostgreSQL, Serverless Architecture

AI / ML: RAG, LLM Integration, Vercel AI SDK, Langfuse, Mastra.ai

DevOps & Integrations: GitHub Actions CI/CD, REST APIs, Auth0, Stripe

Databases: PostgreSQL, Aurora PostgreSQL, SQL Server

Observability: PostHog, Langfuse

EXPERIENCE

CURTIS DIGITAL, INC. — SENIOR SOLUTIONS ARCHITECT

February 2021 – Present

Nettax — Tax Credit Automation Platform

- Architected a full-stack automation platform for a national accounting firm, streamlining Work Opportunity Tax Credit (WOTC) eligibility assessment and form generation
- Built serverless backend with AWS Lambda, API Gateway, and Node.js to automate tax credit calculations, reducing manual processing time by an estimated 80%
- Engineered automated document submission pipeline interfacing directly with state government portals, eliminating manual data entry across multiple jurisdictions
- Implemented PostgreSQL (AWS RDS) data layer with S3-based document storage for secure, scalable client record management

Stack: Node.js, React, PostgreSQL (AWS RDS), AWS Lambda, API Gateway, S3

Perdix — Intelligent Document Management System

- Led development of an enterprise document management platform for flood insurance training compliance
- Built a RAG-powered AI chatbot to surface contextual answers from training materials, improving user self-service and reducing support overhead
- Implemented granular version control and role-based access control for secure document lifecycle management
- Developed responsive React frontend for document upload, management, and training workflow tracking

Stack: Node.js, React, PostgreSQL (AWS RDS), AWS Lambda, API Gateway, S3, RAG / LLM Integration

DWS — WEB DEVELOPER

October 2015 – May 2018

- Developed and maintained client-facing web applications using modern JavaScript frameworks and RESTful APIs
- Collaborated with cross-functional teams to deliver responsive, performant web solutions

WEBCIDER BUSINESS SOLUTIONS — FRONT-END DEVELOPER

April 2014 – July 2015

- Built a multi-tenant e-commerce platform for B2B clients, enabling isolated storefronts with shared infrastructure
- Developed interactive front-end interfaces and single-page applications using modern JavaScript frameworks

QUOTIENT SOLUTIONS, INC. — .NET DEVELOPER

March 2010 — April 2014

- Developed and maintained enterprise web applications using C#, ASP.NET MVC, SQL Server, Entity Framework, JavaScript, and jQuery

OPEN SOURCE

FLUIDCAD — CREATOR & MAINTAINER

github.com/Fluid-CAD/FluidCAD

- Created and maintain an open-source parametric CAD platform for designing 3D models in JavaScript/TypeScript with real-time visualization, built on the OpenCascade B-Rep geometry kernel compiled to WebAssembly
- Built an MCP (Model Context Protocol) server that lets AI agents model parts, inspect geometry, and debug builds — plus VS Code and Neovim extensions and CLI export tooling (STEP, STL, PNG)
- Designed a hybrid modeling experience where users can build parts in code, through the interactive UI, or mix both freely — mouse interactions in the viewport generate the corresponding code automatically; feature timeline with rollback; ~500 GitHub stars and growing community

AI-ASSISTED DELIVERY

- Use Claude Code as primary coding assistant for full-stack development — architecture scaffolding, code generation, refactoring, debugging, and automated test writing across TypeScript/Node.js and React codebases
- Pair ChatGPT and Gemini for design reviews, technical documentation drafting, and evaluating architectural trade-offs before implementation
- Rapid-prototype UI components with v0 (Vercel), then refine and integrate into production React applications
- Conduct AI-augmented research with Perplexity for vendor evaluation, API documentation deep-dives, and best-practice discovery across AWS and serverless patterns
- Enforce rigorous guardrails on all AI-generated code: mandatory human review, automated linting, unit/integration test coverage, and security scanning (SAST) before merge
- Build AI-powered product features using Vercel AI SDK and Mastra.ai (TypeScript) for LLM orchestration; monitor with Langfuse for tracing and PostHog for end-user analytics
- Run local models via Runpod and Ollama for experimentation; use FaL.ai for image generation workloads

EDUCATION

High Institute of Languages in Tunisia — License, English Language and Literature (2006 — 2009)