

Mahmoud El Walid Abdelkarim

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EDUCATION

Grand Valley State University · Allendale, MI

Expected 2028

B.S. Artificial Intelligence, Minor in Business · GPA 3.8 · Honors College

- NCAA Division II Swim & Dive student-athlete: **2026 NCAA All-American** (7th, 100 back, 46.85) and **2026 GLIAC Champion** (100 back), plus GLIAC relay titles in the 200 medley and 400 free.

EXPERIENCE

Rowad Modern Engineering (RME) · Cairo, Egypt

Jun – Jul 2026

AI Integration Intern, Strategy & PMO

- Designed and shipped **RME Intelligence**, an internal AI operating system for a major construction contractor, now live with **38 users across 5 construction projects**.
- Built **13 domain modules** end to end in Next.js, TypeScript, Prisma and PostgreSQL, including BOQ, IPC, Tender, Specification, Variation, Claims & Delay, Knowledge Graph, AI Assistant and Analytics.
- Engineered LLM extraction pipelines that turn bills of quantities, payment certificates, tenders and specifications into structured, queryable data, cutting manual takeoff and certification review **from hours to minutes**.
- Architected the document pipeline as a staged async workflow behind a provider-agnostic AI and OCR layer, with role-based access control, a Vitest suite, and a knowledge-graph retrieval layer for natural-language queries across the portfolio.
- Built the executive dashboard leadership uses for portfolio decisions: contract vs. certified position, pending IPC value, claims exposure, forecast margin and automated risk flags.
- Partnered with Flex Labs to map departmental processes and run stakeholder interviews, converting findings into scoped product requirements; delivered PMO dashboards and board packs.

Emerge Capital · Dubai (Remote)

Exposure Program

Venture Builder

- Supported market research, pitch content and product ideation for portfolio ventures across AI and Web3.

STARTUPS

Founder & Engineer · Independent AI ventures

2024 – Present

- **FINU**: AI money assistant for spending analysis, autopilot savings and putting idle cash to work; secured **\$200K in Google Gemini credits**. Built the marketing and demo site on Next.js and Vercel.
- **FORGE** (in development): training app combining WHOOP recovery, strain and sleep data with lift logging and an AI nutrition coach.
- **NYX** (nyxsystem.online): autonomous AI product with a tiered subscription model on a Netlify and Resend stack.
- **AI automation for SMEs**: designed and prototyped AI receptionists with LLMs and voice APIs, handling booking, intake and follow-up for gyms, clinics and restaurants across Egypt and the MENA region.

SKILLS

AI & ML: LLM integration, RAG and retrieval pipelines, document extraction, agentic workflows, knowledge graphs, prompt engineering, OpenAI and Anthropic APIs

Languages: Python, TypeScript, JavaScript, SQL

Full-stack: Next.js, React, Tailwind CSS, Prisma ORM, PostgreSQL, REST APIs, Vitest, Git

Infrastructure: Vercel, Netlify, Docker, AWS, GCP

Product: Requirements gathering, process mapping, PMO and portfolio reporting, market research, financial modeling

Spoken: Arabic (native), English (fluent)