

Omar Abdalla

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EDUCATION

The University of Toledo

Bachelor of Science in Computer Science & Engineering (GPA: 3.578)

Toledo, OH
Expected May 2027

- **Honors:** University President's List (Fall 2025, Spring 2026)
- **Relevant Coursework:** Data Structures (C++), Object-Oriented Programming (Java), Data Communications, Embedded Systems, Signals & Systems

Owens Community College

Associate of Applied Science in Computer Science (GPA: 4.0)

Perrysburg, OH
August 2023 – July 2024

- **Honors:** Dean's List (Fall 2023, Spring 2024, Summer 2024)

EXPERIENCE

Scientific

Software Engineering Intern, Full-Stack Web Development

Remote (Saudi Arabia)
Summer 2026 Co-Op (May – Aug 2026)

- Solo-engineered and shipped a production bilingual website (Arabic-first RTL and English) for a Saudi pharmaceuticals and medical-devices firm on Next.js 15, React 19, TypeScript, and Sanity CMS, reaching production in 3 days and feature-complete in 10 across 71 commits, owning spec, architecture, build, and deploy with no technical management.
- Architected a fully static (SSG) site with on-demand ISR revalidation for zero-downtime deploys on a lean \$21/month footprint, letting non-technical staff publish through an embedded Sanity CMS with no redeploy.
- Hardened a serverless contact pipeline with Upstash Redis rate limiting, Cloudflare Turnstile, a durable CMS-write-before-email guarantee, and a read/write API-token split so the public path can never mutate data, all covered by roughly 48 Vitest and Playwright tests.
- Built a multilingual SEO system (hreflang and canonical alternates, Organization/Product/FAQ JSON-LD, IndexNow and Bing submission) and tuned KSA mobile Core Web Vitals, taking a previously unindexed domain to full search visibility.
- Engineered SFDA and PDPL compliance into the product (product-specific disclaimers, registration-number governance, a bilingual privacy policy) behind a four-workflow CI/CD pipeline with release-gated production deploys.
- Delivered the go-to-market package beyond code: a bilingual brand and letterhead system, a low-budget KSA marketing playbook, and custom-domain email (Resend SPF/DKIM), all while operating solo across US and Saudi time zones, languages, and a regulated industry.

BrandEg Co.

Technical Documentation Intern

Remote (Saudi Arabia)
Summer 2025 Co-Op (May – Aug 2025)

- Authored and maintained technical documentation and process standards that supported knowledge transfer and consistency across the engineering team.

Owens Community College

Peer Advisor, International Student Services

Perrysburg, OH
September 2023 – May 2024

- Built executive-level Excel dashboards that cut manual reporting time by roughly 35% for office leadership, and advised 60+ students in Arabic and English in a high-stakes, people-first role.

PROJECTS

Company Profile Plugin | Claude Code, Python, Agentic AI / Multi-Agent Workflows

GitHub

- Open-sourced *company-profile* (MIT), a Claude Code plugin distilling a production bilingual KSA pharma build into 10 skills, 2 review agents, 3 commands, and a guardrail hook, shipped as a self-hosted plugin marketplace.
- Designed a two-tier invariant system: a non-blocking PreToolUse hook (Python, graceful grep fallback, zero deps) plus an /invariant-check scan for banned terms, hardcoded hex, physical CSS, and in-memory rate limiting.
- Built a compliance-auditor agent (KSA/SFDA checks with file:line evidence) and an adversarial-reviewer agent spanning correctness, invariants, SEO/accessibility, and security, with rules in a tunable config to re-point to new clients.

Clinical Trial Matching | FastAPI, PostgreSQL, spaCy/SciSpaCy, Next.js, TypeScript

GitHub

- Engineered a clinical-data pipeline demo that ingests ClinicalTrials.gov studies, extracts eligibility criteria via a spaCy/SciSpaCy NLP pipeline, and matches patient profiles to trials with explainable results.
- Built as an agentic, spec-driven exercise, not a product, with provenance tracking, terminology-grounding safety, and FHIR ResearchStudy export across clean app, frontend, and data layers.

SMB Cash Flow Risk Engine | FastAPI, Next.js, React, TypeScript, PostgreSQL, Docker

GitHub

- Built a full-stack invoice risk-scoring demo with a versioned REST API and Docker / GitHub Actions CI/CD across 109 commits; an agentic, spec-driven engineering exercise, not a production product.

SKILLS

How I Build: Co-op engineer who independently drives a project from spec to a live, production-grade product in roughly 3 days and feature-complete in about 10, building scalable, zero-downtime systems through spec-driven development, sound system design, and security-minded engineering, paired with deep research, efficient hands-on use of Claude Code and agentic AI workflows, and a genuine passion for building.

Core Tech: Python, TypeScript, React / Next.js, FastAPI, PostgreSQL, Docker, CI/CD, Vercel

Values: Integrity, attention to detail, optimization, continuous improvement, dependability, and goal-setting. Bilingual (Arabic / English).