

HANY MEDHAT

SOFTWARE ENGINEER

TypeScript | Python | NestJS | FastAPI

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Military Status: Completed

PROFESSIONAL SUMMARY

Software Engineer with hands-on experience building independent web applications, backend APIs, real-time multiplayer systems, and AI-powered tools. Works with TypeScript, Python, NestJS, FastAPI, and PostgreSQL, with additional application development experience in Next.js and Flutter. Brings project-based experience in authentication, relational data modeling, WebSocket communication, API integration, and deployment, with a focus on modular architecture, maintainable code, and end-to-end functionality.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, SQL, Dart

Backend & APIs: Node.js, NestJS, FastAPI, Express.js, Fastify, REST APIs, WebSockets, Socket.IO

Frontend & Applications: Next.js, Flutter, Streamlit

Databases & ORMs: PostgreSQL, MySQL, MongoDB, Redis, SQL Server; TypeORM, Prisma

Architecture & Security: Modular architecture, dependency injection, DTO validation, JWT, Passport.js, RBAC

Development & Deployment: Git, Docker, Docker Compose, Linux/Ubuntu, Nginx, Cloudflare, GitHub Actions, Swagger/OpenAPI, Postman, unit testing

LIVE APPLICATIONS — INDEPENDENT PROJECTS

FormaFlux — File & Media Processing Platform

Python | FastAPI | Next.js | Cloudflare

Live: formaflux.app

- Developed the backend using Python and FastAPI for a web platform offering PDF, image, video, audio, and document-processing utilities.
- Built API-driven processing workflows for the Next.js application and documented backend endpoints through a public Swagger/OpenAPI interface.
- Configured production deployment, custom-domain routing, and SSL/TLS with Cloudflare to make the platform publicly accessible.

Autobus Complete — Real-Time Multiplayer Word Game

Next.js | NestJS | Socket.IO | Redis | Cloudflare Workers

Live: autobuscomplete.app

- Built a browser-based Arabic word game with real-time multiplayer rooms, room-code joining, and classic and blitz play modes.
- Developed NestJS WebSocket gateways with Socket.IO for bidirectional gameplay events, player connections, and room-state synchronization.
- Used Redis for session and room-state management, with Pub/Sub to coordinate multiplayer events across backend instances.

SELECTED SOFTWARE PROJECTS

Freight & Logistics Supply Chain API

NestJS | TypeScript | Fastify | PostgreSQL | TypeORM | Docker Compose

GitHub: github.com/HanyMedhat10/freight-api

- Built a modular freight REST API with versioned endpoints, validated shipment DTOs, pagination, indexed entity fields, and Swagger/OpenAPI documentation.
- Implemented shipment status transitions and tracking-log writes within database transactions, using pessimistic row locking to keep concurrent updates consistent.
- Added JWT/RBAC-protected routes, shipment-volume calculations, and a Docker Compose PostgreSQL service with a health check for local development.

Bazar — E-Commerce API

NestJS | TypeScript | PostgreSQL | TypeORM | Passport.js

GitHub: github.com/HanyMedhat10/Bazar-API-Nestjs

- Developed an e-commerce API with separate modules for users, categories, products, reviews, and orders using NestJS, PostgreSQL, and TypeORM.
- Implemented product CRUD and order workflows covering shipping details, status transitions, cancellation, and stock adjustments.
- Secured administrative routes with Passport JWT authentication and role guards; added DTO validation and explicit handling of invalid or missing resources.

Blended Learning Management System (BLMS)

NestJS | TypeScript | PostgreSQL | TypeORM | Socket.IO

GitHub: github.com/HanyMedhat10/BLMS-Graduation-Project

- Built an e-learning backend with modules for courses, users, quizzes, assignments, submissions, materials, and dashboards.
- Implemented JWT/Passport authentication and role-based access control for student, instructor, and administrative workflows.
- Added real-time chat with Socket.IO, quiz and assignment-submission workflows, grading functionality, and Swagger/OpenAPI support.

AI Resume Analyzer

Python | Streamlit | Groq | Sentence-Transformers | scikit-learn | pdfminer.six

GitHub: github.com/HanyMedhat10/AI-Resume-Analyzer

- Created an interactive Streamlit application that extracts text from uploaded resume PDFs and compares it with a supplied job description.
- Generated text embeddings with Sentence-Transformers and calculated cosine similarity using scikit-learn to display a resume-to-job match score.
- Integrated Groq chat completions for qualitative feedback and improvement suggestions, with displayed analysis metrics and downloadable text reports.

Amazon App Clone — Mobile E-Commerce Application

Flutter | Dart | REST API Integration | Provider | Cloudinary

GitHub: github.com/HanyMedhat10/Amazon_App_Clone

- Built a Flutter commerce client with authentication, product browsing, search, cart, orders, and account flows; integrated REST APIs and persisted login state.
- Implemented an admin panel for product management, Cloudinary image uploads, order-status updates, and earnings analytics.

EDUCATION

Modern University for Technology and Information (MTI University)

B.Sc. in Computer Science | 2020–2024

GPA: 3.0 / 4.0 | Graduation Project: Blended Learning Management System — Grade: A+