

MAZEN ZIDAN

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[linkedin.com/in/mazen-ismail-282333289](https://www.linkedin.com/in/mazen-ismail-282333289) | github.com/Mazen-4 | mazen-4.github.io/Portofolio-Website/

PROFESSIONAL SUMMARY

Full-Stack Software Engineer with production experience building and deploying high-performance web applications. Proven track record of optimizing system performance (98% page load reduction), designing scalable REST APIs, and implementing secure authentication systems. Strong foundation in data structures, algorithms, and competitive programming (3rd place CPC Contest, ICPC Contest). Skilled in backend development, database optimization, and system architecture with expertise across PHP, JavaScript, C++, and modern web technologies.

TECHNICAL SKILLS

Languages: PHP 8, JavaScript (ES6+), C++ (STL), C#/.NET, Python, SQL, HTML5/CSS3

Backend & APIs: RESTful API Design, JWT Authentication, Node.js, Apache, Server-Side Rendering, RBAC

Databases: MySQL, Database Schema Design, Query Optimization, Indexing

Frontend: React.js, Responsive Design, DOM Manipulation, State Management

DevOps & Tools: Git/GitHub, Apache Configuration, Production Deployment, Performance Profiling, GA4 Integration

Core CS: Data Structures & Algorithms, Object-Oriented Programming, System Design, Competitive Programming

Game Development: Godot Engine 4, Unity 3D, Physics Simulation, AI Behavior Trees, Shader Programming

PROFESSIONAL EXPERIENCE

Full-Stack Software Engineer

VenturePoint Egypt for Economic Development | Giza, Egypt | Aug 2025 – Feb 2026

Technologies: PHP 8, MySQL, Apache, JavaScript, JWT, REST APIs, GA4

- Engineered and deployed a complete web platform from the ground up, architecting migration from Node.js to unified Apache/MySQL/PHP stack, resulting in improved maintainability and 98% reduction in page load times (60s → <1s)
- Designed and implemented RESTful API architecture and normalized relational database schema supporting multi-tenant data isolation and role-based access control (RBAC) for 3+ user roles
- Developed custom Content Management System (CMS) with role-based admin dashboard, enabling non-technical staff to manage dynamic content across 15+ pages without developer intervention
- Implemented secure JWT-based authentication system with token refresh mechanisms and granular access control, protecting sensitive economic development data
- Optimized database performance through strategic indexing, query optimization, and intelligent caching strategies, reducing database load by 85% during peak traffic
- Integrated Google Analytics 4 (GA4) for comprehensive user behavior tracking and managed full production deployment cycle including server configuration, DNS setup, and SSL certificate implementation

TECHNICAL PROJECTS

Codeforces Performance Analyzer | <https://github.com/Mazen-4/Codeforces-Performance-Analyzer/>

Technologies: Python, Machine Learning, Data Analysis, REST API Integration

- Built end-to-end ML pipeline analyzing competitive programming performance on Codeforces, processing 1000+ user submissions to identify skill gaps and behavioral patterns through statistical analysis
- Engineered data extraction from Codeforces API, implementing automated data preprocessing and feature engineering for predictive modeling

Dark Souls-Inspired 2D Platformer | <https://github.com/Mazen-4/Dark-Souls-Inspired-2D-Game/>

Technologies: C#, Custom Game Engine, Physics Simulation, AI Programming

- Developed complete 2D platformer game engine from scratch using pure C# without external game frameworks, implementing custom physics system, collision detection, and enemy AI behavior trees
- Designed and programmed combat mechanics inspired by Dark Souls, including stamina management, dodge rolling, and pattern-based enemy encounters

Personal Portfolio Website | <https://mazen-4.github.io/Portofolio-Website/>

Technologies: HTML5, CSS3, JavaScript, Responsive Design

- Designed and developed fully responsive portfolio website showcasing software engineering and game development projects with clean, modern UI/UX principles

EDUCATION

Bachelor of Science in Computer Science

MSA University (Dual Degree with University of Greenwich) | Giza, Egypt | Expected June 2027

- GPA: 3.69/4.0 (MSA University), 3.83/4.0 (University of Greenwich)
- Relevant Coursework: Data Structures & Algorithms, Database Management Systems, Software Engineering, Operating Systems, Computer Networks, Web Development

CERTIFICATIONS & ACHIEVEMENTS

- **3rd Place – MSA CPC Mid-Year Contest (2025)** | Secured 3rd place among 50+ competitors in university-wide competitive programming contest, demonstrating advanced problem-solving and algorithmic thinking
- **ICPC ECPC Qualifications & 18th Place Finish (2024)** | Competed in Egyptian Collegiate Programming Contest (ECPC) qualifications, placing 18th among Egypt's university teams
- **DEEPX NLP Hackathon Participant (2025)** | Participated in Natural Language Processing hackathon, applying ML techniques to real-world Arabic NLP challenges
- **MongoDB Certification – MaharaTech/ITI (2024)** | Completed comprehensive training in NoSQL database design, querying, aggregation, and performance optimization (English & Arabic tracks)
- **PHP Full-Stack Web Development Certification – RCC (2020)** | Foundational certification covering server-side scripting, MVC architecture, and database integration
- **AWS Educate Foundations (2024)** | Completed AWS training modules covering Compute (EC2), Networking (VPC), Storage (S3), and Cloud Architecture fundamentals

LANGUAGES

Arabic: Native | **English:** Proficient (Professional Working Proficiency)