

Mohamed Ahmed Mostafa

+20-1508019645 | mezo.225577@gmail.com | linkedin.com/in/mohamed-ahmed-mostafa | github.com/meedoomostafa
Zagazig, Sharqia, Egypt

EDUCATION

Zagazig University Zagazig, Sharqia, Egypt
Bachelor of Science in Computer Science, Faculty of Computers and Informatics – GPA: 3.1/4.0 2022 – 2026

- Relevant Coursework: Data Structures & Algorithms, Database Systems, Software Engineering, Web Development (.NET), Operating Systems, Machine Learning, Deep Learning (Current)

EXPERIENCE

.NET Development Intern 2024
Information Technology Institute (ITI) Egypt

- Completed 150+ hours intensive training in advanced .NET technologies and enterprise development
- Mastered SQL Server, C#, Advanced C#, LINQ, Entity Framework Core, and ASP.NET MVC

PROJECTS

BlitzMate Chess Engine | *Python, FastAPI, Pygame, PyPy3* 2025 – Present

- Classical chess engine with Negamax algorithm and Alpha-Beta pruning for optimized game tree search
- Zobrist hashing for transposition table efficiency; interactive Pygame GUI for real-time gameplay
- FastAPI backend with UCI protocol for engine integration; PyPy3 JIT compilation for performance optimization

Skyra - Weather Prediction Platform | *Python, FastAPI, LLM, NASA API* 2025

- Backend platform for weather-based event planning with LLM-powered intelligent recommendations

Bosla - AI Learning Roadmap Generator | *.NET, React, RESTful API* 2025 – Present

- Full-stack platform generating personalized learning roadmaps with aggregated multilingual educational resources
- RESTful API backend managing user data and dynamic learning path construction supporting English and Arabic

WDLC Compiler - Local ML Inference | *TypeScript, WebGPU* 2026 – Present

- Browser-based compiler for local ML model inference via WebGPU with computational graph extraction
- 50% improvement in inference speed through optimization passes reducing memory footprint

E-Commerce Platform | *ASP.NET MVC, .NET 9, SQL Server* 2025

- Full-featured e-commerce platform with secure authentication using Repository Pattern and SOLID principles

Villa Management System | *ASP.NET Web API, MVC* 2025

- Full-stack system with RESTful API backend and MVC client application using asynchronous techniques

TECHNICAL SKILLS

Languages: Python, C#, C++, TypeScript, Go, SQL, HTML/CSS
Backend Frameworks: .NET Core/9, ASP.NET MVC/Web API, FastAPI, Entity Framework Core
Machine Learning: PyTorch, LLM Integration, WebGPU, Deep Learning
Databases & Cache: SQL Server, PostgreSQL, Redis, LINQ, Query Optimization
Architecture & Design: N-tier, Repository Pattern, SOLID, RESTful APIs, Microservices, Design Patterns
Developer Tools: Git, GitHub, Docker, PyGame, JetBrains Rider, VS Code, CI/CD
Core Competencies: Data Structures, Algorithms, Competitive Programming, System Design

EXTRACURRICULAR ACTIVITIES

ICPC Mentor: Mentoring 30+ students in competitive programming and algorithmic problem-solving since 2024, achieving 85% improvement in problem-solving speed through structured training
Content Creator: YouTube channel DarkCipher00 with 300+ subscribers creating educational content on algorithms, data structures, and competitive programming
Competitive Programming: Active Codeforces and LeetCode participant, ICPC competitor
Chess: 1600+ Chess.com rapid rating with 4+ years competitive play experience
Open Source: 15+ public repositories on GitHub with active open-source contributions