

Yahia Mohamed Nabil

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Education

- Cairo University** – Bachelor of Computer Science, Cairo, Egypt *Sep 2021 – Jun 2025*
- **Relevant Coursework:** Data Structures, Algorithms, Object-Oriented Programming, Database Systems, Software Engineering, Web Technology, Machine Learning, Natural Language Processing, Generative Adversarial Networks.

Experience

- Mimar Architecture and Engineering** (On Site, Cairo, Egypt) - *Software Engineer* *Mar 2025 – Jul 2025*
- Built MIMO, a WPF desktop tool for engineers, integrating KPI tracking and automated architectural model naming in Autodesk Revit using RAG.
 - Integrated with the Revit API to **detect, count, and locate** design issues (e.g., clashes or non-compliant choices) using element IDs, helping teams maintain standards.
 - Enhanced AI-driven naming with RAG and VLLM, reducing average response time from 15s to 1s.
- DEPI - Data Engineering Trainee** *Apr 2024 – Sep 2024*
- Gained hands-on experience with Database and Data Warehousing concepts, implemented ETL pipelines, performed data analysis and cleansing, and worked with Hugging Face and pretrained machine learning models.

Projects

- Nexus: Agentic Code Helper** 🐙 *Summer 2025*
- Developed a command-line application with multiple agents for code review, bug fixing, code generation, documentation, and error explanation.
 - Integrated the Gemini API as the primary LLM, with LangChain for agent coordination and workflow management.
 - Implemented the Nexus Agent to orchestrate four specialized agents, routing user prompts to the appropriate agent based on task requirements.
 - Designed the CLI to handle user input through an event loop for responsive and continuous interaction.
 - Project currently in progress, with plans to extend functionality and add more agents.
- Thotron AI-NVC: AI Narrated Video Compilation** 🐙 *Winter 2025*
- Designed and developed a frontend application from the ground up using React and Vite, with Redux for state management and Tailwind CSS for responsive styling and layout.
 - Orchestrated a CI/CD pipeline using GitHub Actions and Netlify by creating a GitHub Actions script to build the project and check for errors or missing dependencies.
 - Developed a FastAPI service with VLLM to serve AI models, reducing average inference time for 1,000 tokens from 45s to 5s.
- MIMO - Mimar Architecture and Engineering** *Winter 2025*
- Built a WPF desktop tool for engineers, with a custom UI for KPI tracking and automated architectural model naming in Autodesk Revit using RAG.
 - Developed and integrated the Revit API to detect, count, and locate design issues (e.g., clashes or non-compliant choices) using element IDs.
 - Implemented a FastAPI service with RAG and VLLM for model naming conventions, reducing average response time from 15s to 1s.
 - The application is intended for internal use at **Mimar** to support architectural teams, improve efficiency, and standardize workflows.
- Linkee - DEPI** 🐙 *Summer 2024*
- Designed and implemented an MSSQL database and Django backend for a website simulating Twitter (X).
 - Developed the UI with HTML, CSS, JavaScript, and AJAX to handle frontend interactions with the backend.
 - Implemented core features including **posting, likes, comments, and friend management** (accept, decline, remove).

Extracurriculars

- Participated in a student activity **SCCI** as an IT member.
- Built [SCCI's website](#) using **HTML, CSS, JavaScript, and PHP**, and implemented its online store to handle orders and requests.
- Developed a dashboard for members to view orders and manage store inventory.
- Attended the Big Five Construct event where my manager presented on MIMO and its value; shared insights in a LinkedIn post: [View Post](#).

Skills

Languages: C++, Python, Java, SQL, HTML, CSS, JavaScript.

Frameworks & Tools: Git, GitHub, GitHub Actions, Postman, Docker, Flutter, React, Redux, Tailwind CSS, FastAPI, Django, MSSQL, MySQL, Hugging Face, Llama Factory, LangChain.

Concepts: Data Structures and Algorithms, Big O Notation, Problem Solving, Object-Oriented Programming, Design Patterns, SOLID Principles, RESTful APIs, Databases.