

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.

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.

Extracurriculars

- Participated in a student activity **SCCI** as an IT member.
- Built [SCCI's website](#) using HTML, CSS, JavaScript, and PHP, including an online store with order and inventory management.

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, Mongo DB, 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.