

Ali Tarek Mohamed

✉ alitarek115.at@gmail.com ☎ +201152526996 📍 Giza, Egypt 🔗 LinkedIn 🐙 GitHub

EDUCATION

Faculty of Computer Science and Artificial Intelligence - Cairo University

09/2021 – Present

Relevant Courses:

- Software Engineering
- Algorithms Design and Analysis
- Object-Oriented Programming
- Computer Networks
- Database Systems
- Operating Systems
- Data Structures

PROJECTS

ShopSphere (MERN Stack) [🔗](#)

- **See Project** [🔗](#)
- Built a scalable, full-stack e-commerce platform with a customer-facing storefront, admin dashboard, and RESTful API.
- Developed secure user authentication, product management, and order processing using Node.js, Express, and MongoDB.
- Designed responsive, modern UIs for both client and admin portals using React (TypeScript/JavaScript) and Tailwind CSS.
- Integrated Cloudinary for image uploads and implemented JWT-based authentication and role-based access control.

Soundora (Next.js, TypeScript, Tailwind CSS, Supabase) [🔗](#)

- **See Project** [🔗](#)
- Developed a full-stack music sharing platform where users can upload and stream audio tracks.
- Implemented Supabase authentication and storage for secure file uploads and user sessions.
- Designed a modern, mobile-friendly interface with dynamic routing and real-time track playback.
- Integrated track management with features like title, image, and genre assignment using PostgreSQL via Supabase.

Portfolio (Next.js, Tailwind CSS) [🔗](#)

- **See Project** [🔗](#)
- Built a fully responsive portfolio website showcasing projects, technical skills, educational background, and proficiency in development software.
- Styled with Tailwind CSS for a clean, maintainable design system and consistent responsive layout.

Student Management System (C++) [🔗](#)

- Developed a streamlined student information management system using OOP principles.
- Utilized advanced data structures for efficient data handling:
 - Binary Search Tree (BST): Efficiently searched student IDs.
 - AVL Tree: Maintained balanced height for consistent operation time complexity.
 - Min Heap: Prioritized students with the lowest GPA.
 - Max Heap: Optimized access to students with the highest GPA.
- Enhanced data retrieval efficiency and accuracy, ensuring optimal system performance.

InstaChat (MERN Stack) [🔗](#)

- Developed InstaChat, a real-time chat application
- Utilized Node.js and Express for a robust server-side architecture.
- Implemented Socket.io for real-time bidirectional communication between server and clients.
- Designed a user-friendly interface supporting private chats only, with all users as friends by default.

SKILLS

Frontend Technologies: ReactJS | NextJS | Tailwind CSS | HTML | CSS | JavaScript | TypeScript

Backend Technologies: NodeJs | ExpressJs | PostgreSQL | MongoDB

Other Languages and Tools: C++ | Git | GitHub | Design Patterns | SOLID Principles | REST API | Problem Solving

Basic Knowledge With: Java | Python | Docker | RabbitMq | Supabase

ACHIEVEMENTS

Meta Hacker Cup Contestant 2023 [🔗](#)

- Qualified through all three rounds, achieving top 8% in the Practice Round (**948/12,138**), top 20% in Round 1 (**3,941/20,324**), and top 57% in Round 2 (**3,532/6,193**).

ECPC

- Participated twice in ECPC qualifications, contributing significantly to competitive programming.

LANGUAGES

English — Fluent

Arabic — Native/Bilingual