# Ibrahim Mohamed

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## **EDUCATION**

## Ain Shams University

Cairo, Egypt

Bachelor of Computer Science

Oct. 2022 - June 2026 (Expected)

• Relevant Courses: Analysis & Design of Algorithms, Data Structures, OOP, Databases, Artificial Intelligence, Technical Writing, Networks.

## EXPERIENCE

#### **Software Contributor**

July 2024 - Present

Remote

- Collaborated on improving accessibility for Synfig across Linux distributions using Bash scripts.
- Contributed to discussions around ensuring code maintainability, with a focus on unit tests and documentation.
- · Actively contributed to open-source projects, ensuring seamless integration and system compatibility.

## Projects

QuestBoard — Python, Flask, Docker, AWS — GitHub

Aug. 2025 – Sept. 2025

- Built a full-stack Flask app for weekly coding challenges with live leaderboard and REST API endpoints.
- Implemented user authentication (JWT), submission upload/verification, and live scoring system.
- Dockerized for deployment and integrated with AWS services.

FOS (Faculty Operating System) — C, Assembly, GNU Toolchain, QEMU — GitHub Sept. 2025 — Oct. 2025

- Developed a teaching OS implementing core components such as kernel, scheduler, and memory management.
- Used QEMU for emulation and debugging; documented labs for students to explore OS internals.

Data Communication Project — C#, TCP Sockets — GitHub

Feb. 2024 - Mar. 2024

- Built a client–server application with TCP socket messaging and protocol features.
- Implemented connection handling, message framing, and error recovery.

Speaker Identification — C#, WinForms, MFCC, DTW — GitHub

Apr. 2024 – May 2024

- Created a desktop app for speaker identification using MFCC feature extraction and DTW.
- Built a UI for enrollment, testing, and real-time recognition.

Rock-Paper-Scissors — Python, Pygame — GitHub

Sept. 2025 - Oct. 2025

• Developed a classic arcade-style game demonstrating collision handling, scoring, and game loops.

## TECHNICAL & SOFT SKILLS

**Programming Languages:** Python, C++, C, Java, Bash, JavaScript, Rust (familiar), Go (familiar)

Databases: SQL, PostgreSQL, Redis, MongoDB

Tools & Technologies: Git, GitHub, GitHub Actions, Linux (WSL), Docker, AWS (EC2, S3), CI/CD, REST APIs Computer Science Concepts: OOP, Data Structures, Algorithms, Networking, OS, Design Patterns, Microservices Soft Skills: Communication, Planning, Presenting, Curiosity, Flexibility, Fast Learning, Documentation, Teamwork Languages: Arabic (Native), English (Intermediate)

## Extra-Curricular Activities

## acmASCIS Student Activity

Sept. 2023 - Dec. 2023

Ain Shams University

Cairo, Egypt

• Completed Levels 1 and 2 in problem-solving using C++. Covered Optimization, Complexity Analysis, Number Theory, Data Structures, and Algorithms.