

Mohamed Ayman Khodeir

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Education

Misr University for Science and Technology (MUST), BS in Computer Science Sep 2024 – May 2028

- **Coursework:** Computer Architecture, Operating Systems, OOP, Data Structures & Algorithms

Projects

Flexify - Wallpapers & Widgets | [GitHub](#) | [Play Store](#) Nov 2024 – Present

Tools Used: Flutter, Firebase, Python, FastAPI, SQL, Cloudflare, Shorebird, OCI

- Launched a **Full-Stack** mobile app with **40K+ total installs** and a sustained **4.9 rating** on Google Play.
- Architected a layered **Flutter** UI with **Provider** state management & local **SQLite**, achieving a **0.05% crash rate**.
- Engineered and deployed a **Python (FastAPI)** backend on OCI serving and caching **2K+** asset files, handling monthly peak of **1.5M+** API requests and **150GB+** data served with **99.9% uptime**.
- Integrated **Firebase** services, **Shorebird** OTA updates, and **Cloudflare** for CDN caching and DDoS protection.

Athr - Threat Intelligence Platform | [GitHub](#) | [Live Demo](#) Aug 2025 – Nov 2025

Tools Used: Flutter, Firebase, Python, FastAPI, Cloudflare, OCI

- Secured **2nd Place** in Egypt's largest tech competition, **Digitopia**, out of **6,500+ teams** nationwide as the **Full-Stack Developer** of an SME-focused Dark Web Monitoring SaaS Platform.
- Built responsive **Flutter** dashboards using **MVVM** to visualize **15.6K+ data points** with **<300ms latency**.
- Engineered and integrated secure **FastAPI microservices** with **rate limiting** to query a synthetic threat DB.
- Implemented a hybrid architecture using **Firebase** for tenant isolation and **Cloudflare WAF** for origin protection.

Astro Lens - NASA Global Nominee | [GitHub](#) | [Live Demo](#) Oct 2025

Tools Used: Flutter, Python, FastAPI, Cloudflare, OCI

- Selected as a **Global Nominee** in the 48-hour **NASA Space Apps** Challenge, placing in the **top 10% of 18,868 teams worldwide** as the **Technical Lead** of an AI-Powered NASA Space Research Platform.
- Designed a **cross-platform Flutter UI** with layered architecture enabling tagged search and dynamic filtering.
- Built a scalable **FastAPI backend** with caching, parsing, and AI-powered summarization for research queries.
- Developed a **RAG-based AI assistant** using similarity-driven retrieval & **Gemini API** over **600+ NASA papers**.

Skills

Languages & Frameworks: Flutter, Dart, FastAPI, Python, C++, SQL, SQLite

Tools & Infrastructure: Git, Docker, Firebase, OCI, Cloudflare, Nginx, Linux, Shorebird, Postman

Concepts: OOP, Data Structures, Algorithms, RAG, Cloud Architecture, RESTful APIs, MVVM, CI/CD

Extracurricular Activities

- **Coach** | **MUST ICPC Community** Oct 2025 - Present
 - Training **70+** students in **problem-solving**, **data structures** and **algorithms** using **C++**.
 - Mentoring teams on **competitive programming strategies** and code optimization for contests.
- **Instructor** | **MUST Google Developer Groups on Campus** Sep 2025 - Jan 2026
 - Instructed **20+** students in **Flutter**, **Firebase**, & **FastAPI** through interactive sessions.
 - Fostered student growth through **technical leadership**, code reviews, and direct mentorship.
- **ECPC 2025 Qualifications:** Placed **4th** among all of my university teams. Aug 2025