


# Hassan Sherif Mikawi

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## EDUCATION

### Arab Academy for Science, Technology and Maritime Transport (AAST)

*B.Sc. in Electrical and Computer Engineering; GPA: 3.3/4.00*

Cairo, Egypt

*Oct 2020 – July 2025*

### ALX Software Engineering

*Comprehensive full stack development course*

Cairo, Egypt

*Apr 2023 – May 2024*

## EXPERIENCE

### Co-founder and CTO at YBM

Startup

*Oversaw the technical direction, managed website development, and various digital projects.*

*Sep 2022 – Jan 2024*

- Directed the strategic planning and execution of technology solutions, ensuring alignment with business goals and driving innovation in product development.
- Led the development team in designing and deploying a scalable website architecture, incorporating modern web technologies to enhance user experience and operational efficiency.
- Managed key projects from concept to deployment, focusing on optimizing performance and integrating advanced digital tools to stay ahead in competitive markets.

### Intern at Arab Organization for Industrialization (AOI)

*Contributed to the manufacturing line for hardware components.*

*Jun 2023 – July 2023*

- Assisted in the optimization of the hardware assembly line, implementing lean manufacturing principles to increase efficiency and reduce waste.
- Collaborated with engineering teams to refine design specifications and ensure compliance with industry standards.

## PROJECTS

### Flex Programming Language | Python, JavaScript, React, VS Code Extension API

Jan 2023 – Apr 2024

- Designed and implemented an innovative programming language that seamlessly blends multiple syntax styles (English, Arabic transliteration, and C-style) to accommodate diverse programming preferences
- Developed a robust interpreter with lexical analyzer, recursive descent parser, and comprehensive error handling including AI-assisted debugging
- Created a feature-rich online IDE with real-time input handling and code execution capabilities
- Built two VSCode extensions: one for language support and another with an integrated chatbot to facilitate learning for students
- Implemented cross-platform compatibility with executable builds for Windows, macOS, and Linux
- Designed a smart import system supporting modular code organization and library management

### Advanced Home Server Setup (for Personal Use) | Docker, Homarr, Plex, Nginx, VPN

Feb 2024

- Engineered an extensive home lab setup using Docker to deploy and manage a wide array of services such as media servers (Plex, Jellyfin), download clients (**Transmission**), and content managers (**Radarr**, **Sonarr**, **Prowlarr**)
- Employed Tautulli and Kasm for detailed monitoring and secure, isolated browsing environments respectively, optimizing both user experience and operational security.
- Set up Mealie for meal planning and Teslamate for data monitoring, demonstrating versatility in server utility beyond traditional media and file storage roles.
- Reinforced network security with VPN integrations, safeguarding all data transmissions especially in privacy-sensitive applications like torrenting and external media access.

### Hyper Market Management System | Java, MySQL, NetBeans, jBCrypt, FlatLaf

Jun 2023

- Revolutionized market management with a comprehensive system for sales, purchases, and employee roles.
- Implemented administrative, marketing, inventory management, sales, and user modules.
- Used Java for backend development, NetBeans for GUI, and MySQL for the database.
- Enhanced security with password management using jBCrypt and improved design using FlatLaf.
- Packaged for easy installation using jpackage with an executable installer available in the releases.

### Simple Shell | C, Unix System Calls, GCC, Betty Coding Style

Dec 2023

- Developed a UNIX command line interpreter as a group project, emulating basic shell functionalities.
- Implemented functionalities including command execution, environment manipulation, and custom input handling
- Incorporated system-level programming with Unix system calls like fork, execve, and waitpid to manage processes.
- Utilized C for core development with strict adherence to the Betty coding style for clean and maintainable code.

## SKILLS

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**Languages:** C/C++, C#, Java, Python, JavaScript, Bash, SQL, Flutter

**Operating Systems:** Windows, linux, MacOS

**Developer Tools:** Git, SSH, Linux, VS Code, Visual Studio, Docker, Servers{linux , macos , windows Servers}

**Methodologies:** Agile, Scrum, OOP, Functional Programming, DevOps, CI/CD, TDD

## EXTRACURRICULAR ACTIVITIES

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**ASI - AI Club (Head of Learning)**

(AAST) Jan 2024

*Responsible for designing and implementing the curriculum and organizing AI-focused tournaments.*