Adham Khaled

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Skills

Languages: Python, Java, C/C++, C#, SQL, HTML, JavaScript, TypeScript

Technologies & Tools: ASP.NET, Angular, React.js, NodeJs, ExpressJs, MongoDB, Postgres, SQL Server, Git, Github, Docker, JQuery, Linux, onrender, supabase, Tailwind CSS, Bootstrap, SASS, RxJS, NgRx, Entity Framework, Keycloak, Keycloakify

Experience

Advanced Group For Information Technology Apr. 2024 - Present

Full-Stack Developer *.NET 8, Angular 19*

- **Full-Stack Development:** Architected and developed a comprehensive web application platform for educational online assessments, handling both frontend user interfaces and backend API development with equal proficiency.
- **Frontend Development:** Built responsive and interactive user interfaces using Angular 19, implementing state management with NgRx and reactive programming with RxJS. Utilized Tailwind CSS, Bootstrap, and SASS for modern, maintainable styling solutions.
- **Backend API Development:** Designed and implemented RESTful APIs using .NET 8, creating robust endpoints for assessment management, user authentication, and data processing with comprehensive error handling and validation.
- **Database Architecture:** Developed complex stored procedures in SQL Server containing sophisticated business logic for assessment scoring, user analytics, and workflow management. Optimized query performance for high-volume educational data processing.
- **Identity & Access Management:** Customized Keycloak authentication system using Keycloakify, designing and implementing custom UI templates for login screens, user registration, and administrative panels to match platform branding and user experience requirements.
- **Performance Optimization:** Enhanced open-source React data table components using advanced memoization techniques, reducing unnecessary re-renders and improving rendering performance for large datasets in client projects.
- **Legacy System Integration:** Created an adapter interface in C# to execute R scripts for heavy statistical functions, facilitating seamless integration between backend processes and statistical analysis.
- **Document Processing:** Enhanced Excel file processing by working directly with the XML structure of native documents, enabling precise extraction of content including superscript and subscript formatting using the OpenXml package with C# and .NET 4.7.

NTI's Summer Training Program Nov. 2022 - Oct. 2022

Machine learning Intern *Python, Tensorflow, PyQt*

- Completed a comprehensive course on classical machine learning models using TensorFlow, including supervised learning, linear regression, logistic regression, convolutional neural networks (CNNs), support vector machines (SVM), and artificial neural networks (ANN)
- Developed a desktop application, "Doktork," that utilizes knowledge from the course to analyze MRI scans and X-rays, providing predictive diagnoses based on the examined images.

Education

Helwan University 2020 - 2024

B.S. in Computer Science

Relevant Courses: Database (SQL & NoSQL), Operating System, Algorithms and Data Structures (C++)

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Projects

• Evershop Payment Extension:

Developed a custom payment gateway extension for Evershop e-commerce platform, integrating Paymob payment services with full implementation of transaction processing, webhooks, validation, and refund handling, demonstrating expertise in third-party API integration and open-source platform extension.

• E-library System:

E-Library System that managed Users and Borrowing Module with comprehensive user management and inventory tracking.

• Promoters:
Professional website for Event Planning Company to showcase their portfolio and services with modern responsive design.

• Search Engine:
Developed a ranked retrieval system in Python using a positional index structure and TF-IDF algorithm for efficient document searching and ranking.

• Object Detection Model:
Leveraged the TensorFlow framework and its functional API to build a dual-model architecture for comprehensive object detection and classification.

Honors, Awards and Competitions

- Achieved 62nd place in the Egyptian Collegiate Programming Competition (ECPC) 2023, qualifying for the African Collegiate Programming Competition (ACPC) for the 2023-2024 season.
- Secured 67th rank in the African and Arabic Collegiate Programming Competition.
- Solved +1000 problems on various online judges demonstrating strong algorithmic problem-solving skills.

Leadership and Volunteering

ICPC Helwan Community 2022 - 2024

Co-founder & Mentor

- Provide guidance to a community of computer science students, enhancing their problem-solving and competitive programming skills through structured mentorship programs.
- Organize coding sessions and competition events, serving as a problem setter to foster skill development and promote a culture of continuous learning within the university community.