Cairo, Egypt
(+20) 11 5432 1101

Mohamed Abdelrahman Aboelkassem

✉ aboelkassem.me@gmail.com
in linkedin.com/in/aboelkassem
github.com/aboelkassem
🔗 aboelkassem.tech

EDUCATION

Beni Suef, Egypt   **Beni Suef University**   **Sep 2018 – July 2022**

- **Major**: B.Sc. in Computer Science, Faculty of Computers & Artificial Intelligence.
- **GPA:** 3.30.
- **Graduation Project:** ASAR (Arabic Manuscript Analysis and Recognition system). An intelligent system for digitizing historical Arabic manuscripts.
  - Implemented word spotting and pattern recognition algorithms to convert complex Arabic text images into digital text.
  - Created a web application using Flask framework to provide a user-friendly interface for accessing the ASAR system.
  - Led the team in the research and development of the ASAR system.

PROFESSIONAL WORK EXPERIENCE

Software Engineer   **SilverKey Technologies**   **Oct 2021 – Present**

- Designed and developed highly scalable and secure financial services for Taly's digital payment projects.
- Implemented the SOAP protocol of **Meeza** digital network to handle wallet processing in Egypt, achieving certification from Egyptian Bank.
- Developed a quality monitoring system (**QMS**) for the Ministry of Education and Technical Education (**MoETE**) in partnership with GIZ.
- Implemented complex business solutions to address the needs by building distributed systems using the BFF pattern.
- Implemented web services using different protocols such as gRPC, SOAP, and RESTful APIs.
- Engaged with the UAT team and Security team to address their findings and resolve them.
- Tech Stack: .NET Core 8, OAuth2 with Keycloak, VueJs, LLBLGen, Blazor WASM and Server Side, xUnit, SQL Server, PostgreSQL, Docker, Open Telemetry (Jaeger), and Elastic Stack (ELK).

Software Developer, Intern   **SilverKey Technologies**   **Jul 2021 – Oct 2021**

- Developed and designed new features, resolved bugs for an employment system called Labour Market Access Project (LMAP Admin) to serve many of employment centers and job seekers in Egypt with partnership with GIZ.
- Built a Pizza ordering app to gain proficiency in .NET tools such as C# 10, ASP.NET Core 6.0, and Minimal APIs.
- Learned new technologies including LLBLGen ORM, Vue.js, FluentMigrator, PostgreSQL, MediatR, and CQRS Pattern.
- Gained knowledge about software quality, development models, and database design.

OPEN SOURCE CONTRIBUTIONS

EMVQR.NET
- Build and maintain Nuget Package for generating and parsing QR Codes for digital payments in .NET based on the EMV(R) QR Code Specification Standards.
- Repo Link: https://github.com/aboelkassem/EMVQR.NET

SurveyJS
- Add Arabic Language Support on both libraries survey-creator and survey-analytics.

PERSONAL PROJECTS

Listify   https://github.com/aboelkassem/Listify   **Aug 2020 – Oct 2020**

- Build a real-time web application enabling users to share their preferred music/videos with an online community.
- Developed streaming features and a currency system for an interactive platform experience.
- Integrated Youtube API and Spotify API to facilitate the request and playback songs and playlists within user rooms.
- Added payment integration with PayPal gateway for financial transactions and profanity filter with PurgoMalum API.
- Utilized the IdentityServer4 framework to enable single sign-on (SSO) and diverse user authentication methods.
- Tools used: ASP.NET Core 3.1, Angular 10, SignalR, EF Core, IdentityServer4, SQL Server, AutoMapper.

Chatting App https://github.com/aboelkassem/ChattingApp **Feb 2020 – Mar 2020**

- Developed an application that enhances user engagement through messaging, following, and timeline features.
- Designed RESTful backend server using ASP.NET Core 3.1 and frontend using Angular 9.
- Integrated Cloudinary technology to manage and store members' uploaded photos and files in the cloud.
- <u>Tools used:</u> ASP.NET Core 3.1, Angular 9, EF Core, SQLlite, Heroku, Postman.

Foods https://github.com/aboelkassem/Foods_Restaurant **Dec 2019 – Jan 2020**

- Designed and developed a restaurant management system that allows users to order food online.
- Implemented an admin panel for managing orders in different roles by ASP.NET Core MVC.
- Integrated Stripe payment gateway for financial transactions and SendGrid for notifying users of order status.
- Utilized front-end libraries for good user experience like Datatable.js, timepicker.js, sweetalert.js and font-awesome.
- <u>Tools used:</u> ASP.NET Core MVC 3.0, SQL Server, EF Core, jQuery, Bootstrap 4, AJAX.

SKILLS

- **Programming Language** C#, Go Lang, Python, TypeScript, JavaScript, HTML, CSS
- **Back-End frameworks**: ASP.NET Core, Flask, SignalR.
- **Front-End frameworks:** Vue, Angular, Blazor Web Assembly and Server Side, Bootstrap, jQuery.
- **Databases:** Microsoft SQL Server, PosgreSQL, MySQL.
- **ORMs**: LLBLGen, Entity Framework Core.
- **Technologies**: Docker, Kubernetes, Elastic Search (ELK stack), Open Telemetry with Jaeger, and OAuth2 with Keycloak and Identity Server.
- **Unit Testing**: xUnit.
- **General Concepts:** Algorithms, Data Structure, Distributed Systems. Microservices, Service Oriented Architecture (SOA), CQRS Pattern, Solid Principles, Design Patterns, Database and System Design, Web Services, OWASP Web Security, Linux, Networking, and Agile Methodology.
- **Service Communication Protocols:** SOAP, gRPC, and RESTful APIs.
- **Other Skills:** Good technical writing and communication skills.

LANGUAGES

- Arabic (Native)
- English (Excellent)