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EDUCATION

Beni Suef, Egypt	Beni Suef University	Sep 2018 – July 2022
<ul style="list-style-type: none">• 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.<ul style="list-style-type: none">- 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 ASAR system.- Led the team in the research and development of ASAR system.		

PROFESSIONAL WORK EXPERIENCE

Software Engineer	SilverKey Technologies	Jul 2021 – Present
<ul style="list-style-type: none">• Taly BNPL (Buy Now Pay Later)<ul style="list-style-type: none">- Initiated the project architecture by applying the best practices in .NET Core with backend for frontend (BFF) pattern.- Developed and designed web portal features including plan management, onboarding workflow, maker/checker review, action logs, auto-approval, in-system notifications, background services, and others.- Implemented secure and resilient APIs (Internal & Integration) for onboarding and repayment of external merchant.- Design the system to be multi-tenant enabling banks serve their nested corporate, aggregators, and merchants.- Constructed Feature level and Data Scope authorization flow in the system using Keycloak (Identity provider).- Document the database design and integration API Guide.• Taly Meeza Wallet<ul style="list-style-type: none">- Developed a fully REST APIs based on service-oriented architecture (SOA) for the wallet mobile app, in addition to the inbound and outbound services to be a standalone integration platform.- Implemented the SOAP protocol of Meeza digital network to handle wallet processing in Egypt, achieving certification from Egyptian Bank Company (EBC).- Reduced database workload by implementing distributed caching, leading to improved overall performance.- Ensured regulatory compliance from the Central Bank of Egypt (CBE) by meeting their security, payment standards and requirements.- Write unit tests using xUnit to ensure the business functionality of developed APIs and mock test for inbound service.• Taly Installment<ul style="list-style-type: none">- Developed file mapping and processing functionality to synchronize Bank installment plans and POS transactions.- Implemented SFTP and FTPS connections export and importing files to/from third parties.- Created a file tracking feature to log every event associated with generated files.• Education Quality Monitoring System (QMS)<ul style="list-style-type: none">- Delivered the next phase to the Ministry of Education and Technical Education (MoETE) in partnership with GIZ.- Developed many features in the web portal including school forums, assessment and statistics reports, and surveys.- Implemented the backend REST APIs for school and administration tablets.- Documented the system user manual and system architecture for clarity and user experience.• Labour Market Access Project<ul style="list-style-type: none">- Created Complex queries for reporting dashboard for LMAP Admin portal to serve many employment centers and job seekers in Egypt with partnership with GIZ.- Executed data migration of the database from the legacy software schema to fit the new software schema.- Developed other features like sharing knowledge base, complaints, and company subscriptions.- Implemented global role authorization and user specific authorization to be manageable in admin portal. <p>Tech Stack: .NET Core 8, OAuth2 with Keycloak, VueJs, LLBLGen, Blazor WASM and Server Side, CQRS, xUnit, gRPC, SQL Server, PostgreSQL, Docker, Temporal io, Open Telemetry (Jaeger), and Elastic Stack (ELK).</p>		

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.

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, PostgreSQL, MySQL.
- **ORMs**: LLBLGen, Entity Framework Core.
- **Technologies**: Docker, 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)