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# Mohamed Abdelrahman Aboelkassem

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## EDUCATION

Beni Suef, Egypt	Beni Suef University	Sep 2018 – July 2022
<ul style="list-style-type: none"><li>• <b>Major:</b> B.Sc. in Computer Science, Faculty of Computers &amp; Artificial Intelligence.</li><li>• <b>GPA:</b> 3.30.</li><li>• <b>Graduation Project:</b> <a href="#">ASAR</a> (Arabic Manuscript Analysis and Recognition system). An intelligent system for digitizing historical Arabic manuscripts.<ul style="list-style-type: none"><li>- Implemented word spotting and pattern recognition algorithms to convert complex Arabic text images into digital text.</li><li>- Created a <a href="#">web application</a> using Flask framework to provide a user-friendly interface for accessing ASAR system.</li><li>- Led the team in the research and development of ASAR system.</li></ul></li></ul>		

## PROFESSIONAL WORK EXPERIENCE

Software Engineer	SilverKey Technologies	Oct 2021 – Present
<ul style="list-style-type: none"><li>• Taly BNPL (Buy Now Pay Later)<ul style="list-style-type: none"><li>- Initiated the project architecture by applying the best practices in .NET Core with backend for frontend (BFF) pattern.</li><li>- Developed and designed web portal features including plan management, onboarding flow, maker/checker review, action logs, auto-approval, in-system notifications, and others.</li><li>- Implemented secure and resilient Internal and Integration APIs for onboarding and payments external merchants.</li><li>- Design the system to be multi-tenant enabling banks serve their nested corporate, aggregators, and merchants.</li><li>- Document the database design and integration API Guide.</li></ul></li><li>• Taly Meeza Wallet<ul style="list-style-type: none"><li>- Developed a fully REST APIs based on service-oriented architecture (SOA) for the wallet mobile app.</li><li>- Implemented the SOAP protocol of <b>Meeza</b> digital network to handle wallet processing in Egypt, achieving certification from <a href="#">Egyptian Bank</a>.</li><li>- Ensured regulatory compliance from the <a href="#">Central Bank of Egypt (CBE)</a> by meeting their standards and requirements.</li></ul></li><li>• Taly Installment<ul style="list-style-type: none"><li>- Developed file mapping and processing functionality to synchronize Bank installment plans and POS transactions.</li><li>- Implemented SFTP and FTPS connections export and importing files to/from third parties.</li><li>- Created a file tracking feature to log every event associated with generated files.</li></ul></li><li>• Education Quality Monitoring System (QMS)<ul style="list-style-type: none"><li>- Delivered the next phase to the Ministry of Education and Technical Education (<b>MoETE</b>) in partnership with <a href="#">GIZ</a>.</li><li>- Developed many features in the web portal including school forums, assessment and statistics reports, notifications, and surveys.</li><li>- Implemented the backend REST APIs for school and administration tablets.</li><li>- Documented the system user manual and system architecture for clarity and user experience.</li></ul></li></ul>		

Tech Stack: .NET Core 8, OAuth2 with Keycloak, VueJs, LLBLGen, Blazor WASM and Server Side, xUnit, gRPC, SQL Server, PostgreSQL, Docker, Open Telemetry (Jaeger), and Elastic Stack (ELK).

Software Developer, Intern	SilverKey Technologies	Jul 2021 – Oct 2021
<ul style="list-style-type: none"><li>• <a href="#">Labour Market Access Project</a><ul style="list-style-type: none"><li>- Created Complex queries for reporting dashboard for <a href="#">LMAP Admin</a> portal to serve many employment centers and job seekers in Egypt with partnership with <a href="#">GIZ</a>.</li><li>- Executed data migration of the database from the legacy software schema to fit the new software schema.</li><li>- Developed other features like sharing knowledge base, complaints, and company subscriptions.</li></ul></li></ul> <p><u>Tech Stack:</u> .NET Core 7, LLBLGen, Blazor Server Side, PostgreSQL, FluentMigrator, MediatR, and CQRS Pattern.</p>		

## OPEN SOURCE CONTRIBUTIONS

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### 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

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### 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

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- **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

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- Arabic (Native)
- English (Excellent)