# **Mohamed Hussein**

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#### Solution Architect

Microsoft Azure Architect Certified Full Stack .NET Developer with 18+ years in Telecommunications, Healthcare, and Government, serving roles from Senior Developer to Senior Engineering Manager. Developed scalable systems like government e-Services, patient self-management apps (HL7), and ISP subscriber management (TMForum). Skilled in front-end and back-end tech: Angular, .NET, ASP.NET, MVC, OutSystems, SharePoint, process automation, and infrastructure troubleshooting. Experienced in Azure and AWS cloud platforms.

Object Oriented Programming (OOP) • SOLID Principles • Web Application Security
Concurrency and Multithreading • Data Structures and Collections • Databases Management
Microservices • CI/CD • Cloud • Containerization • Distributed Systems

Languages: C#, JavaScript, Java, Python

Web: HTML, CSS, jQuery

Web Services: Web API, REST, SOAP, WCF, Service-oriented Architecture (SOA), Microservices

Web/App Servers: IIS

Frameworks: Angular, .NET Core, .NET Framework, Entity Framework, Vue.js

Databases: MS SQL, HBase, Hive, DynamoDB, DocumentDB, Redis

SDLC: Agile, Waterfall

Tools: MS Azure, AWS, Azure DevOps, Jira, Postman, GitHub, Visual studio, Visual studio code, Slack, Load Testing

Platforms: Windows, Linux, MacOS Big Data: Hadoop, Spark, Hive, Piq, Kafka

Application/Software: OutSystems, MS SharePoint, BizTalk, MS SharePoint Designer

#### PROFESSIONAL EXPERIENCE

**CAREER NOTE**: Completed on-campus studies and currently taking distance education courses to complete a **Master's Degree in Computer Science** (Available for full-time, W-2 employment).

# Link Development, Cairo, Egypt • 01/2009 - 04/2024

Software leading company in the Middle East..

Led implementation of 250+ e-Services and Integrated with CRM for different e-services projects, Developed ISP subscriber manager, led Self management portal and mobile app for patients.

## Senior Software Engineering Manager (01/2019 – 04/2024)

- Directed the full lifecycle of government e-services portals and mobile app implementations, including migrating legacy systems from design to App Store/Google Play deployment. Integrated external services such as Payment Gateways, eSeal, WIPO, UAE Pass (SSO), Identity Server, Active Directory, Exchange Server, SMS, and SpeechEngine SDK. Utilized OutSystems (Reactive, BPT, Mobile), MS SQL, ETLs, AI Mentor Studio, JavaScript, jQuery, ASP.NET, and APIs to deliver 100+ e-services, facilitating seamless online access, payment processing, authentication, and compliance with government standards without disrupting end users and maintaining data integrity, resulting in high customer satisfaction.
- Spearheaded the development of a scalable medical services platform using OutSystems Traditional and Mobile, enabling patients to access EMRs and medical e-services (reports, special care, medication, vaccines) via portal and mobile apps. Integrated HL7, JSON, Payment Gateways, SSO, Active Directory, Exchange Server, SMS, SpeechEngine SDK, Intelligent Pharmacy Automation, and Cisco systems, enhancing user experience during/post-COVID, facilitating payments and authentication, serving thousands daily, and ensuring compliance with government standards.
- Created an intranet portal for government employees, leading the design and deployment of features like meeting management, news, collaboration, hiring, and initiatives. Integrated with Global HR systems, OpenText Documentum for document storage, Exchange for meeting management, and MS SharePoint.
- Collaborated with the pre-sales team, infrastructure team, data engineering team, and customers to ensure the high-quality delivery of products and services.

## **Development Manager (01/2016 – 12/2018)**

- Led the design and development of multiple enterprise-level e-service applications using ASP.NET, MS SharePoint, AngularJS, C#, .NET, Entity Framework, MS SQL Server, API, and Git, integrating with MS CRM and external services such as Payment Gateway, Active Directory, Exchange Server, SMS, and SpeechEngine SDK to deliver over 150 e-services. This initiative drove millions in annual revenue by providing seamless online access to government services, automating applicant processes to receive services with just a few clicks, facilitating payments and authentication, improving user experience, and ensuring compliance with government guidelines.
- Implemented performance optimization and caching strategies using Azure CDN and Redis, secured sensitive data with Azure Key Vault, and leveraged additional Azure cloud technologies. These enhancements resulted in significantly improved portal response times and increased customer satisfaction by ensuring fast, reliable, and secure access to services.
- Led the design and development of a student fund management application using ASP.NET, .NET, Web API, WCF, and VueJS, establishing Continuous Integration/Deployment (CI/CD) pipelines. Integrated the application with MS CRM to enable guardians to approve fund requests seamlessly and empowered the university to efficiently manage student courses, enhancing approval workflows and administrative processes.

## Technical Lead (01/2012 - 12/2015)

Led the design and development of enterprise telecom applications and background workers for DSL customers using C#, .NET, MS SQL Server, MS CRM, and MS Dynamics 365, driving millions in annual revenue. Exposed APIs and collaborated on self-management portals and dynamic product creation processes in accordance with TMForum frameworks, enabling rapid time-to-market for new products with minimal configuration steps. Integrated billing and dunning systems, DNS, Hosting, and Email, streamlining subscription and change requests, enhancing user experience, and improving operational performance. Additionally, integrated landline services with mobile operator platforms to offer bundled services with single billing invoices, providing seamless service experiences and simplifying billing processes.

## Senior Solution Developer - 01/2009 - 12/2011

Designed and implemented scalable enterprise telecom applications for a major DSL provider using C# .NET Framework, ASP.NET, MVC, MSSQL, Windows Communication Foundation (WCF), and jQuery, driving millions in annual revenue; enhanced operational efficiency by automating core order capture and fulfillment systems, reducing processing times, and integrating applications with provisioning team through automated provisioning modules with LDAP and DSLAM protocols; collaborated with data warehouse teams to integrate real-time data via SSAS and Integration Services, developing management dashboards that provided strategic insights for leadership decision-making.

<u>Technologies Used:</u> Angular JS, .NET, ASP.NET, OutSystems Traditional, Reactive, LDAP, OutSystem Mobile and Identity Server, MS SharePoint, C#, .NET, MS SQL Server, MS CRM, Redis, BizTalk, Javascript, jQuery, Content Delivery Network (CDN), Git, BizTalk.

## LinkdotNET (Orange), Cairo, Egypt • 11/2006 - 12/2008

Fixed Broadband (ADSL) leading service provider in Egypt and other countries. Acquired by Mobinil then Orange (France).

## **Solution Developer**

Build telecom product features for large ISP

Automated and optimized core order capture and fulfillment systems for telecom applications using C#, .NET Framework, ASP.NET, MSSQL, BizTalk, and JavaScript, increasing customer flexibility and reducing processing times; engineered and deployed time-to-market features such as secondary router implementation and workflow modifications with .NET Framework, Visual Studio, MS SQL Server, Telerik, BizTalk, and JavaScript, enhancing system reliability and operational efficiency; developed and deployed comprehensive reports using ASP.NET Report Viewer and MS SQL, enabling efficient inventory tracking and allowed government teams to monitor telecom central office requests

<u>Technologies Used:</u> .Net, C#, ASP.NET, MSSQL and Javascript, BizTalk, Report Viewer, Telerik.

### **EDUCATION**

#### Master of Science in Computer Science

(In progress via distance education; expected completion 12/2025)

Maharishi International University, Fairfield, Iowa

# Key Courses: Machine Learning, Big Data Technology, Cloud Computing

# Diploma in Data Science and Big data

Nile University, Giza (05/2016)

# **Bachelor of Science in Computers and Information in Computer Science**

Helwan University, Cairo, Cairo (05/2006)

### **CERTIFICATIONS**

AWS Certified Solutions Architect - Associate: by Amazon (2024)

<u>AZ-303: Microsoft Azure Architect Technologies</u>: by Microsoft (2022)

Associate Reactive Developer: by OutSystems (2022)

**Trainings** 

TOGAF Foundation (2018) TOGAF Level 2 (2018)