

OSAMA ABDELHAMID

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PRINCIPAL SOFTWARE ENGINEER

Experienced Principal Software Engineer with 10+ years in architecting and developing mobile, web, and desktop applications. Specializing in Enterprise Software Solutions, Emergency Response Systems, Crisis Systems, and GIS. Recognized for delivering scalable, high-performance systems. My strong communication and leadership skills were instrumental in driving project success.

Technical Leadership • Software Architecture and Design • Full-Stack Development • Project Management • Problem Solving and Troubleshooting • Cloud Computing Architecture • Quality Assurance and Testing • SDLC • UI/UX

Languages: Objective-C

Web: HTML5, CSS3, JS, Typescript, Bootstrap, React, Node, AJAX

Web Services: REST, SOAP, WebSocket, Microservices, Frontend Microservices

Web/App Servers: IBM WebSphere, IIS, Apache

Frameworks: Esri GIS, Spring Core, Spring Boot, Spring Security, Hibernate, Angular, Cordova, Quartz

Databases: Oracle, MySQL, MS SQL, PostgreSQL, MongoDB

SDLC: Waterfall Model, Agile Model, DevOps, Scrum

Tools: Rational Plan, Trello, Jira, Draw.io, Dynatrace, NeoLoad, ActiveMQ, Kafka, Docker, Postman, SoapUI, Swagger, TFS, Git, Maven, CocoaPods, NPM, SQL Developer, VirtualBox, IntelliJ, Sketch, AdobePS

Platforms: Windows, Mac, Linux

Application/Software: AirWatch MDM, Citrix Workspace, Microsoft Surface

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).

Ministry of Interior, National Command Center, Doha, Qatar • 01/2022 – 01/2023

The NCC coordinates emergency responses, manages crises, and contributes to infrastructure and security.

Lead Principal Software Engineer

- Participated in a significant project to migrate best-of-breads systems to a cloud-based microservices architecture by architecting and designing, leveraging Docker, and Azure for streamlining integration, scalability, and performance.
- Led design and development of Frontend Microservices framework. Enhanced modularity, scalability, flexibility, and maintainability. Facilitated migration to cloud-based microservices architecture and streamlined CI/CD processes.

Ministry of Interior, National Command Center, Doha, Qatar • 09/2015 – 12/2021

The NCC coordinates emergency responses, manages crises, and contributes to infrastructure and security.

Principal Software Engineer

- Established iOS development team, initiating numerous projects. Led team creation, recruitment, and training.
- Established a dedicated UI/UX team, transitioning to a specialized approach. Led team creation, recruitment, and training.
- Led cross-functional team in implementing VMware AirWatch MDM, streamlining device.
- Led software development, integrated with ministries, streamlining COVID-19 swabbing/reporting. Reduced testing time from 20 minutes to 30 seconds. Utilized Utilized Esri GIS Tools/Swift/Java/Oracle/WebSphere.
- Led software development, integrated with the national emergency response system to assist in applying COVID-19 lockdown. Utilized Esri GIS Tools/Angular/Java/Oracle/ WebSphere.
- Designed and implemented an iOS application using Esri GIS Tools/Objective-C/Java/Oracle/WebSphere. Integrated with ERS. Replaced the using TETRA/WokiToki. Improved call-for-service response times from minutes to seconds.
- Designed and implemented a communication solution for control rooms of various stakeholders, for the FIFA World Cup Qatar 2022™. Utilized Esri GIS Tools/Angular/Java/Oracle/WebSphere. Enabled efficient, secure and real-time updates.
- Designed and implemented a solution for real-time statistics. Utilized Esri GIS/Java/Oracle/React/WebSphere. Enabled data-driven decision-making. Reduced reporting time from hours to real-time.

- Designed and implemented a software solution to transform manual map drawing and presentation to an interactive user-friendly tool. Utilized GIS/Microsoft Surface/C#/Oracle/Citrix. Reduced process time from hours to minutes, enhancing security and privacy of critical event planning.
- Designed and implemented a logistics planning solution to manage resources and personnel. Utilized Esri GIS/C#/Oracle/Citrix. Resulted in a more effective and efficient response to emergencies.
- Designed and Implemented a hybrid iOS app to create a real-time statistics app for high-level management, facilitating decision-making and eliminating the need for manual data retrieval. Utilized Esri GIS Tools/Cordova/Java/WebSphere.

Ministry of Interior, National Command Center, Doha, Qatar • 11/2014 – 08/2015

The NCC coordinates emergency responses, manages crises, and contributes to infrastructure and security.

Senior Software Engineer

- Implemented emergency response system 999 for Qatar (similar to 911), using Esri GIS Tools/Java/VB.NET/Flex/Oracle/WebSphere. Transitioned control rooms from paper-based to computerized, enhanced public safety.
- Implemented handheld device with barcode reader, streamlining police vehicle and personnel movement, allowing for data queries. Used GIS/Motorola/C#. Eliminated need for larger devices, manual operations room contact.

Technologies Used: *Esri GIS, Obj-C, Swift, Java, C#, VB.Net, Angular, React, NodeJS, HTML5, CSS3, Bootstrap, REST, SOAP, Microservices, Frontend Microservices, ActiveMQ, Azure, IBM WebSphere, Docker, SpringCore, SpringBoot, Hibernate, Quartz, Oracle, Rational Plan, Trello, Jira, Draw.io, Dynatrace, NeoLoad, Postman, SoapUI, Swagger, TFS, Git, Maven, NPM, CocoaPods, Sketch, AdobePS, AirWatch MDM, Microsoft Surface, Citrix Workspace*

STARS PRINT CO., Cairo, Egypt • 01/2010 – 08/2014

Outsourcing and staffing company.

Analyst Programmer

Successfully developed custom software solutions for clients, meeting their specific needs and requirements.

Technologies Used: *Obj-C, iOS and Apple modules and tools, CocoaPods, Cocos2D/3D, Unity, Java, Spring, Hibernate, Apache, ApacheCXF, MySQL, AdobePS, GIT*

Aria Systems Inc, Cairo, Egypt • 02/2007 – 01/2008

Apparel management software solutions.

Software Developer

Contributed to the design, and development of migrating the legacy system to a new version of the Aria® framework.

Technologies Used: *.NET Tools, ASP.NET, C#, MS SQL Server, HTML, CSS, JS, jQuery*

ACADEMIC PROJECTS

- **Maharishi International University (2023) - Real-Time Data Processing and Analytics Integration:** Led a real-time data processing project with Apache Kafka, Spark, HBase, and Tableau. I developed custom Kafka tools, Spark Streaming apps, and explored Spark SQL with HBase and Tableau. This project honed my big data skills.
- **Maharishi International University (2023) - Full-Stack Web Application Development:** Developed full-stack web app using HTML5, JavaScript, CSS3, Node.js, Swagger, Postman, AdobePS. Features: separate client and server-side projects, login, shopping cart, server-side order validation. Showcased web dev and problem-solving skills.
- **Maharishi International University (2023) - Alumni Management Portal:** Java-based web app with Spring Boot, Spring Security, Oracle, Microservices, Docker, RabbitMQ, Postman, Git, Maven. Features: user registration/authentication, alumni profiles, job portal, events, news, messaging, admin dashboard.
- **Maharishi International University (2024) - Mini Property Management System:** Web app using Java, Spring Boot, Spring Security, Oracle, React, Postman, NPM, Git, Maven. Features: user roles (Admin, Owner, Customer), registration, admin dashboard, property CRUD, offer management, messaging, offer history, saved lists, PDF/Excel receipt generation.

EDUCATION

Master of Science in Computer Science

(In progress via distance education; expected completion April 2025 (In Progress))

Maharishi International University, Fairfield, Iowa

Key Courses: *Big Data Technologies, Web Application Programming, Enterprise Applications, Web Applications Architecture and Frameworks, Modern Programming Practices*

Master in Computer Science - Cloud Computing Networks

(expected completion June 2024)

Faculty of Computers and Artificial Intelligence, Cairo, Egypt

Key Courses: *Advanced Data Centers Structure and Technologies, Cloud Infrastructure and Services, Advanced Cloud Networks Security, Advanced Virtualized Networks, Data Analytics, Blockchain, Cloud Lab, Fundamentals of Projects Management, Information Technology Infrastructure Library ITIL*

Bachelor of Science in Computer Science & Information Systems

Faculty of Computers and Artificial Intelligence, Cairo University, Cairo, Egypt, *June 2008*

CERTIFICATIONS

Project Management 6th edition, April 2018.

VMware AirWatch MDM Bootcamp (Level: Associate & Professional), February 2018.

Soft Skills Training and Certifications.