Yassine Zakhama

Software Engineer

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Experience

Software Backend Engineer October 2022 – Present

Integration Objects *Tunis, Tunisia*

- Worked on IT-OT integration platform for secure interoperability by unifying and structuring disparate IT and OT data sources.
- Implemented new features and new software products, increasing system efficiency by 30%.
- Implemented object-oriented programming concepts, client-server applications, N-tier applications, and Windows services-based applications.
- Used ASP.NET, C#, and JavaScript to design and develop web-based solutions, both front-end and back-end.
- Utilized ORM tools such as LINQ to SQL and ADO.NET Entity Framework for database interaction, reducing database query times by 25%.
- Gained experience with protocols like gRPC and protoBuf.
- Enhanced and developed web pages displaying real-time information using ASP.NET and SignalR.
- Designed applications using UML, use cases, and design patterns (Singleton, Factory, Builder), improving code maintainability.
- Troubleshot and resolved memory leaks, CPU issues, and database bugs, achieving a 40% reduction in incident response time.
- Optimized existing code, leading to a 30% performance enhancement in the application.
- Implemented micro-services architecture, improving scalability and optimization.
- Built a robust data recovery mechanism.
- Employed ZeroMQ (ZMQ) and MQTT protocols to facilitate data transformation between components.
- Configured secure communication protocols such as TLS and SSL (certificate management, encryption).
- Ensured redundancy strategies (Hot, Cold, and Warm) to enhance system reliability.
- Proficiently utilized Git version control system and demonstrated expertise in Azure DevOps.
- **Technologies** | *C# , ASP .NET Worker service, .NET 6, Azure DevOps, Open Platform Communication (OPC)*

Web Developer Intern January 2022 – June 2022

RedLean *Monastir, Tunisia*

- Designed, built and deployed a Salesforce Application, including a web platform and a mobile app, while implementing AI-powered OCR modules for automated data detection.
- Integrated third-party APIs to expand the functionalities of the Salesforce Application.
- Participated in project planning and road-map discussions to align software development efforts with organizational goals and priorities.
- **Technologies** | *Salesforce, OCR, Deep Learning, Unit Tests*

Software Engineer Intern May 2019 – July 2019

Anypli *Monastir, Tunisia*

- Developed a web application that integrates Webex services to provide flexible and secure virtual discussion and meeting spaces, tailored to users' needs.
- Contributed 50K+ lines of code to an established codebase via Git
- **Technologies** | *React.js, Cisco Webex, Cloud Integration, Docker, Webhooks*

Education

Software Engineering Degree Sousse, Tunisia

Higher Institute of Applied Sciences and Technology of Sousse *September 2019 – July 2022*

Preparatory Cycle to Engineering Studies Sousse, Tunisia

Higher Institute of Applied Sciences and Technology of Sousse *September 2017 – June 2019*

Projects

Connector Cloud Deployment | *ASP.NET, Azure, MongoDB, Docker* Dec. 2023 – Present

- Facilitates seamless deployment into container cloud providers with robust security measures.
- Supports authentication modes for both Azure and AWS.
- Enables key functionalities such as deploying, starting, stopping, and retrieving health information of deployed services.

Smart IoT Brokers | *Net Framework 6, SQL Server, OPC , MQTT, OPC UA* May 2023 – Present

- A plug-and-play software product designed for the Industrial Internet of Things (IoT).
- Collects real-time data, alarms, and conditions from multiple OPC Classic / OPC UA Servers connected to PLCs and control systems.
- Securely sends data to Microsoft Azure via IoT Hub for further processing and archiving, supporting MQTT, AMQP, and HTTP transport protocols for seamless cloud communication.

Technical Skills

Languages: C#, Python, Java, .Net Core, ASP .NET, JavaScript, Node.js, HTML/CSS
Database Management System: SQL, MySQL, Influx DB, Mongo, PostgreSQL, Oracle
Developer Tools: Git, Docker, Google Cloud Platform, Azure DevOps, Visual Studio

Achievements

Teacher and Best Teamwork Award Chongqing, China

Belt and Road Teenager Maker Camp & Teacher Workshop *November 2020*

- The Belt and Road Teenager Maker Camp & Teacher Workshop, co-hosted by the China Association for Science and Technology and the Ministry of Science and Technology of China, fosters cross-cultural exchange, innovation, and collaboration among young participants and science educators.

Project Supervisor - Bronze Medal Award Izmir, Turkey

2nd Oğuzhan Özkaya Education Karademir Science Energy Engineering Fair (OKSEF) *June 2019*

- OKSEF is an international project competition organized by Oğuzhan Özkaya Educational Institution.

Special Award - Best Project Award Daejeon, South Korea

MILSET Expo-Sciences ASIA *October 2018*

- Expo-Sciences are non-competitive multicultural exhibitions showcasing STEAM projects by children and youth from around the world, and interactive exhibits by STEAM-related institutions.

International Judge - World Robot Olympiad Guiyang, Guizhou, China

China Adolescent Robotics Competition & World Adolescent Robot Contest *July 2018*

- Judged at the 18th World Adolescent Robotics Competition in Guiyang, China, hosted by the China Association for Science and Technology (CAST) in cooperation with national organizer SEMIA.

Honorable Award - 4th Place New York, USA

Genius Olympiad *June 2015*

- GENIUS Olympiad is an international project competition founded and organized by Terra Science and Education, and hosted by the Rochester Institute of Technology.

Honorable Participation in the Competition of Young Scientists Milan, Italy

Federation of Scientific and Technical Associations *May 2014*

- On behalf of the Directorate-General for Research of the European Commission, 'I Giovani e le Scienze' aims to promote the scientific and technological potential of young people in Italy.

Certificates

Introduction to Quantum Computing: Qubit by Qubit IBM Quantum - Quantum Computing with IBM Quantum
Additive Manufacturing: at the level of ASSOCIATE

Languages

English : Full professional proficiency - **French :** Full professional proficiency - **Arabic :** Native