

Alaa Omar

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SUMMARY

Works in the Ministry of higher education as head of the IT department/ Senior software engineer on different software solutions. Highly proficient in software engineering, database administration, and data science (2010–present).

OBJECTIVE

Software Engineer with experience in data mining, machine learning, and language models. Proven research ability to fine-tune models that can understand and analyze text data. Seeking a position where I can use my skills to improve customer experience and help the company achieve its goals.

WORK EXPERIENCE

- **Ministry of higher education** Ramallah, Palestine
IT department *July 2010 - Current*
 - **Network Administrator:** Manage SQL Server databases, Configure and maintain database servers and processes. Monitor system's health and performance. Ensure high levels of performance, availability, sustainability and security. Refine and automate regular processes, track issues, and document changes. Developed a backup policy, system administration. Web server administration. Group Policy rules.
 - **Software Engineer:** Software analysis and requirement gathering; Testing and troubleshooting; Web / Desktop Application development using VB, C#, Telerik; Web services development using WCF.; SQL Database development (functions, stored procedures, etc.) ; Managing web server, database server, publish updates, take backups, manage users.
- **NTS** Ramallah, Palestine
Software Developer *May 2009 - June 2010*

During this period, I worked in the outsourcing department in a project called Ikebana with a new technology called Dojo "JavaScript library", the project aimed at converting an existing HTML web-based legacy project with a prim base database into java Wicket as a back-end, and a dojo as interface.; Then I also worked at the .NET Department, with Net Tiers generated using code smith tool and Visual Studio 2008, Reporting Service SSRS 2008 using SQL Server Business Intelligence Studio, SQL Server 2008 Database, and Visual Studio 2008 using C#, VB.

CERTIFICATIONS

- Data Scientist, Center of continuing education -Birzeit University.
- CCNA Academy, Cisco Certified Network Associate.
- English Conversation Course, Amideast Organization.
- Computer Technician "CompTIA" A+ course, AMRA Information Technology.
- ASP.NET 40 hour-training courses in "ASP.NET", The Korean Information Technology Institute of Excellence in corporation.
- Python Programming Course (30) hours, Purpose.

SKILLS

- **Languages:** Python, VB.NET, Java, C++, SQL, Unix scripting
- **Tools:** Kubernetes, Docker, GIT
- **Data Science:** Pandas, Numpy, Elasticsearch, Logstash, Kibana, SPARK, KAFKA
- **Web Scraping:** BeautifulSoup, Selenium WebDriver
- **NLP:** Transformers (BERT) using PyTorch
- **Network:** VMWare, VSphere, Backup Tools
- **Databases:** Relational DBs (MS-SQL), NoSQL (Mongo), Graph DBs (Wikidata)
- **Reporting:** Crystal Reports, SSRS
- **Soft Skills:** Communication, Problem Solving, Self-learning, Attention to Detail, Research, Teamwork

EDUCATION

- **Birzeit University** Ramallah, Palestine
Masters in Software Engineering; GPA: 4.0/4.0 *Jan 2019 - Oct 2022*
Courses: Software Construction, Requirements Engineering, Software Design and Architecture, Software Engineering Management, Software Testing, and Quality Assurance, Secure Software Development, Distributed Systems.
Thesis: Arabic Named Entity Disambiguation and Linking in Software Engineering. Developed and implemented NLP models for the sentence-pair classification tasks, and named entity recognition for the Arabic language.
Supervisor: Prof. Mustafa Jarrar.
- **An-Najah National University** Nablus, Palestine
Bachelor of Computer Engineering; GPA: 79.2 *Aug 2004 - May 2009*

PROJECTS

- **Arabic Named Entity disambiguation and Linking:** Implemented APIs for Arabic named entities recognition from free text and linking those named entities to Knowledge Graphs (disambiguation). Implemented a methodology to build a corpus of millions of records to train data for text classification models. Generate False pairs using different techniques (Cross-relating and local-false). Technologies used: Elasticsearch, BERT, Python (Pandas, Django).
- **Cross-selling recommender system :** Provide a decision support system base on Machine Learning for cross-selling recommendation to help managers build effective offers. A real-time dashboard for management reporting to show offers performance. Technologies used: Kafka, Angular, MongoDB, FastAPI, and apriori, FPGrowth algorithms for implementing the ML model
- **Content Aggregator:** A Content Aggregator fetches information from different website sources and displays the aggregated information in one place, so you don't have to visit multiple websites to get the latest info: one website is enough. Technologies used: Python flask, blueprints, requests, and BeautifulSoup for scraping, MongoDB, Bootstrap 3.5
- **Mall Store:** An implementation of a simple shopping mall in Java. The project is built using Design patterns. The GUI Application is built using Java. Design patterns used: Singleton, Abstract Factory, Iterator, Observer, Composite
- **ErrorMessagesAPI:** A Rest API that satisfies the 12-factor methodology. This API exposes the CRUD (create, read, update, delete) on the message model. The API is built using the ASP.NET core, The main domain of this API is to provide a way for others to manage their SW errors (get, get by id, add, delete) anytime. Technologies: Dotnet core, docker, Kubernetes, MongoDB
- **Student Loan Data Management System:** A Windows Application for student loan fund data management and a web portal for students, university employees, and Iqrad employees. Technologies used: vb.net, Telerik, crystal reports, WCF

PUBLICATION

- Omar, A.; Alsadeh, A. and Nawahdah, M. (2022). **Adherence to Secure Software Development Lifecycle.** In Proceedings of the 17th International Conference on Software Technologies - ICSOFT, ISBN 978-989-758-588-3; ISSN 2184-2833, pages 410-417. DOI: 10.5220/0011263700003266