

# RAYEN TAJOURI

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## SOFTWARE ENGINEER

Versatile software engineer with 2 years of software development experience including 1 year as professional and 1 year internship and academic; developing, maintaining, and deploying cutting-edge software solutions using C#, .NET, Angular and MySQL. Hands-on in the industrial and cryptocurrency industry while adapting an agile development methodology. Good understanding of machine learning and deep learning tools like PowerBI, python and Jupyter Notebook.

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Microservices • Machine Learning • Object-oriented programming •  
Software Development Life Cycle • Database Design • Algorithms and Data Structure

**Languages:** Python, C#, PHP, Java

**Web:** HTML, CSS, JSON, XML

**Web Services:** RESTful APIs, Microservices Architecture, CQRS

**Web/App Servers:** Apache, Nginx, Tomcat, AWS

**Frameworks:** .NET, Angular, Symfony, Kafka

**Databases:** MySQL, Oracle, ORM, MongoDB, HBase

**Design Patterns:** MVC, CQRS

**SDLC:** Agile, Scrum

**Tools:** Anaconda, Visual Studio, IntelliJ IDEA, Eclipse, Visual Studio Code, PHPStorm, Git, GitHub, JUnit, Docker, Jnekins, Jupyter Notebook, Netbeans, Swagger, CodeBlox, StarUml

**Platforms:** Windows, Linux, Cloudera, Centos, Kali Linux

**Big Data:** Hadoop, Pig, Spark, ElasticSearch, Map reduce, sqoop, flume.

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## 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).

### POULINA GROUP HOLDING, Tunis, Tunisia • 06/2021 – 07/2023

Mass consumer goods

#### Software Engineer (06/2022 – 07/2023)

Developed Full Stack Application and integrated Machine Learning Modules.

- Developed a timesheet functionality module using C# and .NET, digitalizing employee time management, significantly reducing time and cost.
- Designed the database for the time functionality application using MySQL, achieving seamless data storage and retrieval.
- Implemented a data analysis tool for data visualization using PowerBI, reducing decision-making time by 25%, resulting in 100% accuracy of information about customers.
- Built the user interface for the application using TypeScript and Angular, increasing the user experience for our customers significantly.
- Integrated a machine learning based task recommendation system using Python and Jupyter Notebook, decreasing development time by 35%.

**Technologies Used:** C#, .NET, TypeScript, Angular, Python, MySQL, SQL server, Swagger, Git, PowerBI, Jupyter Notebook

#### Data Science Intern (04/2022 – 06/2022)

Developed predictive models using advanced algorithms like LSTM and KNN, while also handling data cleaning, visualization, and parameter optimization for the On-chain analysis cryptocurrency project.

- Played a pivotal role in the On-chain analysis cryptocurrency project, focusing on predicting cryptocurrency prices using machine learning and deep learning techniques.

- Responsible for comprehensive data cleaning and advanced data visualization techniques to prepare datasets for analysis and conducted thorough grid searches to optimize model parameters for improved accuracy in price prediction.
- Experimented with various algorithms, including LSTM and KNN, within the domain of time series analysis to develop robust models.
- Successfully deployed a predictive model demonstrating a 15% improvement in accuracy compared to baseline models.
- Showcased proficiency in navigating complex datasets and applying cutting-edge machine learning techniques to drive informed decision-making in the dynamic cryptocurrency market.

**Technologies Used:** Python, Anaconda, Jupyter Notebook

#### **Web Developer Intern (06/2021 – 09/2021)**

Develop Full Stack Application

- Developed an Industry Waste Management functionality module using C# and .NET, significantly reducing time and cost.
- Designed the database for the Waste Management functionality application using MySQL, achieving seamless data storage and retrieval.
- Built the user interface for the application using TypeScript and Angular, increasing the user experience for our customers significantly.

**Technologies Used:** .Net, Angular, Swagger

### **ACADEMIC PROJECTS**

**Maharishi International University (2024) Big Data Project:** Implemented a stock data system with Kafka for real-time ingestion into Spark Streaming, storing in HBase and HDFS. Applied Spark SQL for analytics and used Jupyter Notebooks for data visualization, exploring stock insights. Tools used: Jupyter, Cloudera, Kafka, Spark Streaming, HBase, Spark SQL, HDFS.

**Maharishi International University (2023) Automatic track attendance:** Led the creation of an AI-based Automatic Attendance System using machine and deep learning for accurate face recognition and tracking. This efficient solution simplifies attendance management across various settings. Used: Python, Deep Learning, Machine Learning.

### **EDUCATION**

#### **Master's in Computer Science**

*(In progress via distance education; expected completion 04/2026)*

Maharishi International University, Fairfield, Iowa

**Key Courses:** Enterprise Architecture, Algorithms, Artificial Intelligence, Big Data Technologies

#### **Bachelor of Science in Computer Engineering with a Specialization in Data Science**

ESPRIT, Ariana, Tunisia (2023)