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Reza Shatery

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Education and Certifications

- **M.Sc. Artificial Intelligence,** University of Bologna, Italy. **2022–2024**
- M.Sc. Thesis: Readability Assessment For Text Simplification
- GPA: 103/110
- **B.Sc. Computer Science and Engineering,** Iran University of Science & Technology, Iran. **2007–2013**
- B.Sc. Thesis: Bayesian Models For Extracting Natural Text Grammar

Work Experience

Machine Learning Researcher **CMCC** **Feb 2025–Present**
AI team Lecce, Italy

- Performed UNET++ for Wildfire Prediction with the MAPE of 1.128 percent
- Applied MLOps methodologies to streamline deployment, monitoring, and scalability of machine learning models.
- Tools:Python(3.10.10),TensorFlow(2.16.1),Scikit-Learn(1.5.0),SpaCy(3.4),NLTK(3.0), Transformers(4.41.2), Pandas(2.2.2), NumPy(2.0), Matplotlib(3.9.0)

Machine Learning Engineer **PWC** **Feb 2024–Sep 2024**
AI team Bologna, Italy

- Achieved 87.91 percent accuracy in classifying simple and complex sentences in the English language.
- Performed binary classification of sentences in Italian with an accuracy rate of 82.21 percent.
- Implemented model training pipelines with DevOps practices, automating workflows using CI/CD.
- Applied MLOps methodologies to streamline deployment, monitoring, and scalability of machine learning models.
- Tools:Python(3.10.10),TensorFlow(2.16.1),Scikit-Learn(1.5.0),SpaCy(3.4),NLTK(3.0), Transformers(4.41.2), Pandas(2.2.2), NumPy(2.0), Matplotlib(3.9.0)

Machine Learning Engineer **Faash Corporation(City Bank Of Iran)** ***Jan 2019 - Jul 2022***
Banking Operation Team Tehran, Iran

- Led the development of a fraud detection model, reducing false positives by 30% and improving detection accuracy by 25%.
- Implemented a predictive credit scoring model, optimizing loan approval processes and reducing decision time by 20%.
- Collaborated with compliance and risk management teams to ensure ML model transparency and adherence to banking regulations.
- Adopted MLOps practices to streamline the deployment, monitoring, and lifecycle management of fraud detection and credit scoring models.
- Tools: Python (3.9), TensorFlow (2.x), Scikit-Learn (0.24), SQL, Spark, AWS.

Senior Android App Developer **IMTMC** ***Mar 2016 - Jan 2019***
News and IoT Team Tehran, Iran

- Directed a highly effective team of 4 developers in the creation of a mobile app for a athletics news service.

- Integrated RESTful APIs and over 8 third-party libraries to enhance application functionality.
- Built an application for sport news media and social media news.
- Created 2 apps: device Tracker and mobile tracker for follow users.
- Constructed 2 apps: Online shopping and tourist app for modern towers in Tehran.
- Tools: Java(SE 15), JDK(16.0.2),XML(1.9.1)**.**

Technologies and Languages

- **Programming Languages**: Python, R, Java, Kotlin, C++, C#, JavaScript, Prolog, SQL.
- **Tools & Technologies**: MySQL, Git, Docker, GCP, Azure, AWS, LLM, Gen AI, Databricks,DevOps and MLOps Methodology, Tableau, CI/CD Pipelines, HTML, CSS, Angular, Node.Js, NoSQL
- **Frameworks**: Apache Spark, TensorFlow, PyTorch, Keras, Scikit-Learn, XGBoost, CatBoost, SpaCy, NLTK, Transformers, HugginFace, OpenCV, Pandas, NumPy, Matplotlib, Seaborn, CUDA, Hadoop, ETL processes, Langchain, RAG architecture, SageMaker
- **Methodologies:** SDLC: Agile, Waterfall, Scrum.

AI Projects

- **Skin Disease Image Classification for Accurate Categorization**

  Tools: Python, TensorFlow/Keras, OpenCV
  Developed a machine learning pipeline to classify images of various skin diseases accurately.
  Trained on a dataset of approximately 2000 images across multiple skin disease categories.
  Achieved the highest precision of 0.81 using a Convolutional Neural Network (CNN), while a Support Vector Machine (SVM) achieved the highest recall of 0.66.

- **Web Traffic Time Series Forecasting**

  Tools: Python, ARIMA.
  The training dataset consists of approximately 145k time series for Wikipedia.
  Utilized Neural Networks (NN) and ARIMA models for time series forecasting, achieving 78% and 86% accuracy, respectively.

- **Big Data analysis on direct marketing campaigns of banking institution**

  Tools: Python, Apache Spark, Hadoop
  The training dataset consists of approximately 800k of rows.
  Random Forest achieved the highest precision of 0.65 while Decision Tree had the highest recall of 0.54 among the three models (Logistic Regression, Decision Tree, Random Forest).

Additional Information

- **Languages :** English*: Advanced*, Italian: *Limited Proficiency.*
- ***Research interests:*** *Machine Learning, Deep Learning, Business analytics, NLP.*
- **Awards**: 2007, 593th Rank in ”National Entrance Exam for B.Sc.,” among more than 400000 Students.
- **Certifications**: *AWS Cloud Practitioner Essentials.*
- ***Relevant Coursework:*** *Machine Learning | Deep Learning | Image Processing | Combinatorial Decision Making and Optimization | Cognition | Statistical Method for AI | NLP | Artificial Intelligence in industry | Big Data Analysis.*