# Parisa A. Mahdavi

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## **SUMMARY**

With 3+ years of experience, I am a seasoned Machine Learning Developer, deeply passionate about leveraging data for strategic business decisions. My strength lies in fostering cross-team collaboration within the agile framework, contributing to cohesive and effective project execution. With hands-on experience in merging ML algorithms with embedded systems, employing advanced acceleration methods.

#### **TECHNICAL SKILLS**

- -Programming Language: Python, SQL, R.
- -ML Platform: PyTorch, Keras.
- -Data processing: Pandas.
- -Python Libraries: NumPy, scikit-learn,
- $\hbox{\bf -Visualization tools:} \ {\bf Tableau}.$
- -Solid understanding of AWS.
- -Hardware Description Languages: VHDL, Verilog
- -Expert in Git for version control.

#### **SOFT SKILLS**

- -Excellent Team-Working skills.
- -Excellent communication skills (English).
- -Agile software development.

## **EXPERIENCE**

## Done Tech, Tehran — Machine Learning Developer

July 2021 - Aug 2023

Done is An AI-powered platform streamlining Smart TV usage and enhancing user experiences by effortlessly discovering ideal movies, music, and games.

- Collaborated with a data analytics team to collect required data based on business needs and clean and manipulate them using Microsoft Excel and Pandas library.
- Fine-tuned a transformer architecture using PyTorch to create a classification model for a smart voice assistant with 90% accuracy.
- Collaborated with Machine Learning Engineers to deploy ML models using Docker container and Flask API.
- Paired with the data science team to showcase AI service results and their alignment with business needs to stakeholders and PMs in sprint sessions.
- Launched Persian Smart Assistant on 300K+ smart TVs, enabling user interaction and movie recommendations.

# Madara Tarah Co, Mashhad — Electronics Intern

May 2016 - Jan 2017

- Contributed to team efforts in designing industrial boards with high-performance processors (Xilinx Zynq and Nvidia Jetson series).
- Assisted in verifying component symbols and footprints, reviewed schematics and PCBs, ensuring alignment with reference designs.
- $\ Demonstrated\ a\ strong\ commitment\ to\ precision\ and\ quality\ in\ the\ design\ and\ verification\ process\ during\ the\ internship.$

## **PROJECTS (Freelance)**

# Optimization of a CNN model for MNist classification

- In my master's thesis, I optimized a CNN model for faster inference on Xilinx FPGAs using techniques such as approximate multipliers, and quantization in convolution layers. This led to a 50% reduction in runtime with just a 4% accuracy loss in predictions.

## Predict real Disaster tweets (Kaggle competition)

- Used Python RegEx module for cleaning data.
- Analyzed data (text statistics, Explore Ngram, ...) using Sklearn.
- Trained and evaluated an LSTM model combined with an attention layer in the Keras framework.

#### MultiLabel text classification

- Developed a transformer model (Bert) for the Stack Overflow dataset to categorize data into multiple labels with a 74% F1-score.
- Cleaned and transformed 900k text data using Python libraries.

#### **EDUCATION**

M.Sc. Electrical Engineering | September 2017 - September 2020 Ferdowsi University — Mashhad

**B.Sc. Electrical Engineering |** September 2011 - January 2016 *Birjand University — Birjand* 

## **CERTIFICATION**

Natural Language Processing | Coursera — March 2023

Azure AI Fundamentals | Mic — December 2023