

# Mohammad Mehdi Jafari

I am fully committed to taking ownership of my product and going above and beyond the typical 9-to-5 job to add genuine value. My experience in developing personalized chatbots and automated question-answering systems, as well as working alongside medical practitioners, has given me a deep appreciation for using AI to assist people with their problems. I understand the dedication required for this position, and I am highly adaptable to its demands. I am eager to face any practical challenges and tests that come my way to demonstrate my qualifications and readiness.

## Contact

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LinkedIn: Mohammad Mehdi (meti) Jafari  
GitHub: Meti-94 - Projects I'm interested in and work on daily  
StackOverflow: meti - Contributing back to the community  
Google Scholar: Mohammad Mehdi Jafari - Academic research in ML, NLP and AI

## Work Experience

**AI Team Lead, Hooshyar** 2023 - Present

- Applied data-driven insights to streamline business operations, resulting in a significant increase in efficiency and cost savings.
- Employed statistical techniques and data mining to generate actionable reports that assisted in strategic decision-making.
- Collaborated with stakeholders to implement data models for audience segmentation, leading to more targeted marketing strategies and improved business outcomes.
- Presented findings and recommendations to both technical and non-technical stakeholders, facilitating a better understanding of data-driven strategies.

**Data Engineer, MCI HUB** 2022 - 2023

- Designed and implemented data anonymization and pseudonymization strategies to ensure data privacy and compliance with regulatory requirements.
- Leveraged NLP algorithms for text data processing and extraction, resulting in improved data quality and accuracy.
- Developed key phrase extraction mechanisms for language-specific content, aiding in better content organization and search functionality.

**Data Scientist, Hooshyar** 2020 - 2022

- Developed an AI-powered system for identifying COVID-19 using CT scans and cough sounds.
- Collaborated with radiologists and clinicians to validate the model's performance and ensure its clinical applicability.
- Deployed the system into the hospital's workflow, enabling faster and more accurate triage of COVID-19 patients.
- Designed and developed data-driven solutions, including chatbots and text summarization, to improve customer engagement and content accessibility.
- Implemented information retrieval systems using search engines including Solr and Elastic Search, enhancing data accessibility and search capabilities.

**NLP Specialist, CICAP** 2018 - 2020

- Built sentiment analysis models using deep learning techniques, improving the accuracy of emotion detection in customer interactions.
- Developed hate-speech detection solutions with high precision using advanced NLP models, contributing to content moderation and customer safety.
- Designed and deployed APIs for model serving, enabling easy integration of NLP solutions into existing systems.
- Established data acquisition pipelines tailored to specific use cases, ensuring data integrity and relevance for analysis.

## Publications

*Improved Relation Span Detection in Question Answering Systems over Extracted Knowledge Bases* (2023). Published in *Expert System With Applications*. - This rigorous research bridges **named-entity recognition**, **token classification**, and **graph-based databases**. Leveraging advanced algorithms, including various BERT variants combined with **CNNs** and **RNNs**, the study benchmarks cutting-edge methods in computational analytics.

*Improving Pre-trained Language Models for Relation Extraction Using Syntactic Information in Persian* (2021). Published in *ACL Anthology*. - Centered on enhancing **entity detection** and **semantic parsing**, this work utilized innovative methodologies to introduce **auxiliary information** into **Transformer-based models**. Such advancements highlight the potential in predicting structured data interactions, relevant to financial modeling.

*Enhancing Coherency in Personalized Chat-bots Using Differentiable Neural Computers* (2019). Published in *IKT - Domestic*. - Investigating the augmentation of memory attributes in RNNs, **GRUs**, and LSTMs, the paper underscores the power of specialized memory mechanisms deploying **attention**. While focusing on chat-bots, the insights extend to a broader range of **sequence-to-sequence** analytical tasks, emphasizing predictive algorithmic capabilities.

*A Question Answering System Based on Knowledge Base Using Deep Learning* (2019). Published in *IKT - Domestic*. - Venturing into the domain of **information retrieval**, this research underscores the potency of **MLPs** over conventional heuristics, showcasing advancements in algorithmic performance. Such explorations signal the potential in extracting predictive patterns from vast datasets.

## Education

<i>Shahid Beheshti University</i>	2017 - 2020
M.Sc. in <b>Artificial Intelligence</b> and Robotics	
<i>Shiraz University</i>	2012 - 2017
B.Sc. in <b>Computer Engineering</b>	

## Languages

Persian: Mother Tongue  
English: Fluent (IELTS 7.0)