# Amir Sartipi

Isfahan, Iran

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## **Education**

**University of Isfahan** Isfahan, Iran

MSc in Software Engineering

Sept 2020 - Current

• **GPA:** 18.94/20

- Thesis: 'Multilingual Complex Named Entity Recognition'
- · Participated in SemEval 2022 and 2023
- Ranked 1st out of 60 students
- · Near completion

**University of Isfahan** Isfahan, Iran

BSc in Software Engineering Sept 2016 - Aug 2020

• GPA: 15.54/20

• Thesis: 'Design and implementation of news monitoring system'

• Ranked 14th out of 120 students

### Research Interests

Natural Language Processing Deep Learning **Data Mining** 

**Machine Learning** Graph Neural Network Artificial Intelligence

## Publication and Project \_\_\_\_\_

**Publication** Isfahan, Iran

Sept 2021 - Aug 2022 University of Isfahan

- An Evaluation of Persian-English Machine Translation Datasets with Transformers In review Link to pre-print
- Exploring the Potential of Machine Translation for Generating Named Entity Datasets: A Case Study between Persian and English In review -Link to pre-print
- Sartipi-Sedighin at SemEval-2023 Task 2: Fine-grained Named Entity Recognition with Pre-trained Contextual Language Models and Data Augmentation from Wikipedia In review -
- OPSD: an Offensive Persian Social media Dataset and its baseline evaluations (In preparation)

**Projects** Isfahan, Iran

Sept 2016 - Aug 2022 University of Isfahan

- Design and develop a real-time system for instant analysis of Persian Twitter text data by Stanza, Spark, Flask, Redis, Elastic, Kibana, Kafka.
- · Aspect-Based-Sentiment-Analysis by applying CNN and LSTM with word embeddings such as word2vec, GloVe and fastText
- Aspect-Based-Sentiment-Analysis by mBERT, XLM-R, ParsBERT language models
- · Multi-class classification by applying DT, SVM, RFC, GNB, MLP, KNN algorithms, feature engineering, and using active learning to handle missing values and hyperparameters tuning
- Clustering and classification of the Uber and Titanic datasets by PySpark library
- Developing an information retrieval system on the WIKIBOOKS dataset
- · Developing an intelligent agent to achieve maximum profit in a competitive environment
- Implementing the Eclat, Apriori.

## Work Experience \_\_\_\_\_

**NLP Engineer** 

**Vira Virast** Shiraz, Iran (remote)

• Developing grammar error detection application with transformers

Aug 2022 - Current

- Build grammar error correction with a combination of elastic search and transformer fill-mask
- Automatic parallelization for unaligned data
- · Processing huge amount of data with Spark

**University of Isfahan** Isfahan, Iran

Teaching Assistance Sept 2020 - Aug 2022

- Courses: Data Mining (3x), Computer Programming, Database Design (2x), Analysis and Design of Big Data Systems, Advanced Database Design
- · Regularly assisted in tutoring, project and assignment preparation, and assessment

FEBRUARY 28, 2023

#### **Isfahan University of Technology**

Isfahan, Iran

NLP Researcher and Developer Apr 2020 - Sept 2020

- Collaborated with a four-person team to develop a model that detects offensive comments.
- Finetuning the SOTA language model such as BERT, DeBERTa, mT5 and attention-based models
- Crawling data, labeling, and creating datasets for detecting offensive comments
- · Applying NLP techniques like data augmentation and active learning to make the model more robust
- Deploying models as an API

#### **Isfahan University of Technology**

Isfahan, Iran

Jun 2020 - Mar 2021

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Full-stack Web Developer

- Developing REST APIs and representing all features as a service
- Developing user interface and improving user experience
- Monitoring APIs by frameworks like Elastic and Kibana
- Handling HTTP requests by Kubernetes

Freelance Projects Isfahan and Tehran, Iran

Full-stack Web Developer

May 2018 - May 2020

- Plasco: Developing APIs for managing industrial workshops
- Bringo: A Web App to integrate online pharmacies
- Cubeh: A Web App to get orders for buying products from customers
- Rayo: Online turn reservation for clinic patience
- Rayo: Designed and developed for mentoring projects

## Skills\_\_\_\_\_

Artificial Intelligence Python (Pandas, PyTorch (Geometric, Lightning), NumPy, Tensorflow, Keras, scikit-learn, pyspark, Apache Spark, wandb)

**Web Development** Django Rest Framework, Django, Angular, Angular Material, Angular JS, jQuery, Bootstrap, Materialize

**IDE** Visual Studio Code, PyCharm, Spyder, Google Colab

**Miscellaneous** Linux, ₭₸₢X(Overleaf/), Git, Docker, Elasticsearch, Kibana.

**Soft Skills** Time Management, Teamwork, Problem-solving

## Achievements

2022	8th out of 647 teams, Data Science Cup 2022	Amirkabir University
2022	our out of our teams, but a science sup 2022	Technology, Iran
2021	Lecturer for the University of Isfahan, Annual Research Week (Graph Machine Learning)	Iran
2021	1st out of 72 teams, Nation contest in artificial intelligence	Isfahan University of
		Technology, Iran
2021	13th out of 1800, Digikala Data Science Cup 2021 (The largest online store in Iran)	Iran
2020	<b>Tuition Waived for M.Sc degree</b> , Iranian University Entrance Exam, the top <b>4%</b> among more than <b>15000</b>	Iran
2019	participants.	nan
	37th out of 236, ICT Contest	Sharif University of
	37th out of 236, ici contest	Technology, Iran
2016	Tuition Waived for B.Sc degree, Iranian University Entrance Exam, the top 3% among more than 160000	Iran
	participants.	Iran

## **Languages**

**English** Working proficiency **Persian** Native proficiency

### Certificate\_

Offered by DeepLearning.Al, Coursera Build Basic Generative Adversarial Networks
Stanford University CS224W: Machine Learning with Graphs

Stanford University Stanford CS224N: NLP with Deep Learning
Offered by Google, Coursera Foundations: Data, Data, Everywhere

**Udemy** TensorFlow Developer Certificate in 2021 Zero to Mastery **Udemy** Machine Learning A-Z™ Hands-On Python and R in Data Science

References available upon request.

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