# Amir Sartipi

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## **Education**

University of Isfahan Isfahan Isfahan

MSc in Software Engineering Sept 2020 - Sept 2020 - Sept 2020

• **GPA:** 18.94/20

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

University of Isfahan Isfahan Isfahan

BSc in Software Engineering

• **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 Machine Learning
Data Mining Graph Neural Network Artificial Intelligence

## **Publication and Project**

**Publication** Isfahan, Iran

University of Isfahan

Sept 2021 - Current

May 2023 - Current

Sept 2016 - Aug 2020

- Amir Sartipi, Amirreza Sedighin, Afsaneh Fatemi, and Hamidreza Baradaran Kashani. 2023. Sartipisedighin at semeval-2023 task 2: Fine-grained named entity recognition with pre-trained contextual language models and data augmentation from wikipedia. In *Proceedings of the 17th International Workshop on Semantic Evaluation*, pages 565–579, Toronto, Canada. Association for Computational Linguistics.
- A. Sartipi and A. Fatemi, "Exploring the Potential of Machine Translation for Generating Named Entity Datasets: A Case Study between Persian and English," 2023 9th International Conference on Web Research (ICWR), Tehran, Iran, Islamic Republic of, 2023, pp. 368-372, doi: 10.1109/ICWR57742.2023.10139222.
- OPSD: an Offensive Persian Social media Dataset and its baseline evaluations **In review**
- An Evaluation of Persian-English Machine Translation Datasets with Transformers In review Link to pre-print

## Work Experience\_

**NLP Engineer** 

Neuroship Netherlands (Remote)

• Designed and developed an Enterprise Coding Assistant.

• Collaborated on projects involving Large Language Models.

- Implemented a summarization system for git repositories using Large Language Models (LLMs).
- Utilized open source LLMs, OpenAI, and VertexAI, to enhance project capabilities.
- Facilitated semantic interaction between vector databases and Large Language Models.
- Deployed Large Language Models on Google Cloud Platform (GCP).
- Developed diverse agents to work towards common goals.
- Gained experience working with helm charts, Kubernetes (k8s), and k9s.
- Created FastAPI applications to interact with agents.

**Viravirast** Remote

NLP Engineer Aug 2022 - Current

- Implemented a paraphrase generation system using generative models.
- Developed a grammar error detection application using transformers.
- Implemented a punctuation suggestion system.
- Built a grammar error correction system using a combination of ElasticSearch and transformer fill-mask techniques.
- Implemented automatic parallelization for unaligned data.
- Deploying language models in production.
- Processed massive amounts of data using Spark.

University of Isfahan 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

September 11, 2023

Isfahan, Iran

NLP Researcher and Developer Apr 2020 - Sept 2020

- Collaborated with a team of four to develop a model for detecting offensive comments.
- · Fine-tuned state-of-the-art language models such as BERT, DeBERTa, mT5, and attention-based models for the task.
- Crawled data, labeled comments, and created datasets for detecting offensive comments.
- · Applied NLP techniques such as data augmentation and active learning to improve the model's robustness.
- Deployed the models as an API.

Full-stack Web Developer

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

Isfahan, Iran

Jun 2020 - Mar 2021

- Developed REST APIs and encapsulated all features as services.
- Developed a user interface and improved the user experience.
- Monitored the APIs using frameworks such as Elastic and Kibana.
- · Handled HTTP requests using Kubernetes.

Freelance Projects Isfahan and Tehran, Iran

Full-stack Web Developer May 2018 - May 2020

- Plasco: Developed APIs for managing industrial workshops.
- Bringo: Designed and developed a web application for integrating online pharmacies.
- Cubeh: Designed and developed a web application for receiving customer orders to purchase products.
- Rayo: Developed an online reservation system for clinic patients.
- Rayo: Designed and developed a mentoring project.

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

**NLP** Prompt engineering, LangChain, LLMs, Complex reasoning in NLP, Chain of Thought, Gradio

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

MiscellaneousLinux, ŁTEX(Overleaf/), Git, Docker, Elasticsearch, Kibana.

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

Interests Applied Al, Natural Language Processing, Deep Learning, Machine Learning, Data Scientist, Graph Neural Network

## Achievements \_\_\_\_\_

2022	8th out of 647 teams, Data Science Cup 2022	Amirkabir University
		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
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
	participants.	
2016	<b>Tuition Waived for B.Sc degree</b> , Iranian University Entrance Exam, the top <b>3%</b> among more than <b>160000</b>	Iran
	participants.	

## **Languages**

**GRE** Estimated exam date: 2023-11-18 **English** IELTS (Estimated exam date: 2023-10-18)

**Persian** Native proficiency

### Certificate \_

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

Stanford University
Stanford University
Stanford University
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

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