

Ayyoob Imani

+49 15737250460 • ayyoob@cis.lmu.de • [google scholar](#) • [github](#)
ayyoobimani.github.io • [in linkedin](#)

Research Interests

Applications of large language models, including sequence labeling and word alignment, Representation learning; Multilinguality and cross-lingual transfer, Parameter-efficient methods, low-resource learning.

Education

PhD in Computer Science

University of Munich (Ludwig-Maximilians-Universität München)

Munich, Germany

11/2020-present

- Focus: Low-Resource Natural Language Processing
- Supervisor: [Hinrich Schuetze](#)

MEng in Computer Engineering

University of Tehran

Tehran, Iran

09/2016-06/2019

- GPA : 4.0/4.0
- Thesis Topic: *Semantic matching for information retrieval systems*
- Supervisor: [Azadeh Shakery](#)

BEng in Computer Engineering

Iran University of science and technology

Tehran, Iran

09/2010-09/2015

- GPA : 3.71/4.0

Publications

- [1] [Imani, A.](#), Severini, S., Sabet, M. J., Yvon, F., & Schütze, H. (2022, December). Graph-Based Multilingual Label Propagation for Low-Resource Part-of-Speech Tagging. EMNLP 2022. [\[paper\]](#) [\[code\]](#)
- [2] Movahedi, S., Adabinejad, M., [Imani, A.](#), Keshavarz, A., Dehghani, M., Shakery, A., & Araabi, B. N. (2022). Δ -DARTS: Mitigating Performance Collapse by Harmonizing Operation Selection among Cells. ICLR 2023. [\[paper\]](#) [\[code\]](#)
- [3] [Imani, A.](#), Şenel, L. K., Sabet, M. J., Yvon, F., & Schütze, H. (2022). Graph neural networks for multiparallel word alignment. Findings of ACL 2022 [\[paper\]](#) [\[code\]](#)
- [4] Severini, S., [Imani, A.](#), Dufter, P., & Schütze, H. (2022). Towards a broad coverage named entity resource: A data-efficient approach for many diverse languages. LREC 2022 [\[paper\]](#) [\[resource\]](#)
- [5] [Imani, A.](#), Sabet, M. J., Şenel, L. K., Dufter, P., Yvon, F., & Schütze, H. (2021). Graph algorithms for multiparallel word alignment. EMNLP 2021 [\[paper\]](#) [\[code\]](#)
- [6] [Imani, A.](#), Sabet, M. J., Dufter, P., Cysouw, M., & Schütze, H. (2021). ParCourE: A Parallel Corpus Explorer for a Massively Multilingual Corpus. ACL 2021 [\[paper\]](#) [\[code\]](#)
- [7] [Imani, A.](#), Vakili, A., Montazer, A., & Shakery, A. (2018). An Axiomatic Study of Query Terms Order in Ad-hoc Retrieval. ECIR 2019 [\[paper\]](#)
- [8] [Imani, A.](#), Vakili, A., Montazer, A., & Shakery, A. (2018). Deep Neural Networks for Query Expansion using Word Embeddings. ECIR 2019 [\[paper\]](#)

Professional Experience

Software Developer/ Technical Manager
TSETMC

Tehran, Iran
10/2016-10/2020

I had a part-time job as a software engineer for three years and then one year full-time as a technical manager, working with technologies like C, C++, Java, Oracle, and Linux.

TSETMC Is the main IT solution provider for stock markets in Iran.

Software Engineer

Oddrun

Tehran, Iran

11/2015-10/2016

At *Oddrun* I worked on a push notification service, capable of handling millions of online users.

Technologies: Java, Hibernate, NGINX, C, Redis, Posgresql, python

Co-founder, Technical Manager

HISIS

Tehran Iran

01/2013-10/2015

I co-founded HISIS with two other friends in my final year of undergraduate studies; I worked on Apache Ofbiz, which is a Java-based ERP system.

Honors and Awards

- Ranked 2nd in "Yadegar ACM cup", Yadegar Emam University, Tehran, Iran (2016).
- Ranked 41st among more than 30000 participants in "M.Sc. University Entrance Exam in Software Engineering Field" (2016).
- Ranked 4th among all students of B.Sc. in Computer Engineering, Iran University of Science and Technology, Iran (2015).
- Ranked top 0.1% among approximately 400000 participants in "Iran National University Entrance Exam (Konkour)" (2010).

Programming Skills

- **Languages (excellent):** Python, C/C++, Java
- **Languages (familiar with):** R, SQL, Bash
- **Machine learning frameworks:** PyTorch, Tensorflow, keras, Pytorch Geometric
- **Natural language processing frameworks:** HuggingFace
- **Other:** Git, Docker, Numpy, Scikit-learn,

Teaching Experience

- Natural language processing (Spring 2018)
- Neural Networks and deep learning (Spring 2018 and Fall 2018)
- Statistical inference (Spring 2018)
- Information retrieval (Fall 2017 and Fall 2018)
- Data mining (Spring 2018)
- Analysis and design of Algorithms (Fall 2013)
- Advanced programming (Spring 2013)
- Computer fundamentals and programming (Fall 2011)
- Discrete mathematics (Spring 2013)

Languages

Persian (*Native*), English (*C2*), German (*A2*)