

MELIKA AYOUGHI

PhD. in Machine Learning

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EDUCATION

Ph.D: Extracting Knowledge Graphs from Videos

University of Amsterdam, @VIS Lab & INDE Lab

📅 Oct. 2020 – Now 📍 Amsterdam, Netherlands

- Multi-modal learning, hyperbolic learning, self-supervision, high-level video understanding, compositionality
- Self-contained entity discovery from captioned videos: <https://dl.acm.org/doi/10.1145/3583138>
- Continual hyperbolic learning of instances and classes
- PART: self-supervised pretraining with pairwise relative translations

M.Sc. Artificial Intelligence, GPA: 8/10

University of Amsterdam

📅 Sep. 2018 – August 2020 📍 Amsterdam, Netherlands

- Implemented Gaussian processes, VAE, GAN, RNN/LSTM, and Normalizing Flows, among others.

B.Sc. Computer Science – Track: Information Technology, 1st Rank

University of Tehran

📅 Sep. 2013 – June 2018 📍 Tehran, Iran

- Sentiment Analysis on customer ratings of an e-commerce corporation (Digikala) with LSTMs, Python, Apache Spark, Scala
- Strong background in Advanced Algorithms and Data Structures, Internet Engineering, Signals and Systems

Mathematics and Physics Diploma, GPA: 19.84/20

National Organization for Development of Exceptional Talents (NODET)

📅 Sep 2006 – Jun 2013 📍 Tehran, Iran

PROFESSIONAL EXPERIENCE

Research internship

Apple MLR

📅 Aug. 2023 – Dec. 2023 📍 Cupertino, United State

- Training transformers with pairwise relative transformations on object parts as the self-supervision signal

M.Sc. Thesis (Research) Intern

TomTom

📅 Nov. 2019 – July 2020 📍 Amsterdam, Netherlands

- Multi-Scale Gambler for Object Detection: One of the main challenges in object detection is the imbalance between the different classes and how hard it is to learn about less-frequent categories compared with frequent categories. Our goal was to tackle the challenges coming with long-tailed distributions, Pytorch

Deep Learning Intern

Dexter Energy Services B.V.

📅 June 2019 – July 2019 📍 Amsterdam, Netherlands

- Implemented a recurrent neural network (ConvGRU) to predict future cloud position using satellite imagery (EUMETSAT data) for energy imbalance forecasting. Pytorch, Google Cloud Services

Teaching Assistant

University of Amsterdam/ University of Tehran

📅 Sep. 2015 – Now 📍 Amsterdam & Tehran

- Teaching Assistant for these courses: **UvA:** Applied Machine Learning, Machine Learning 1 **UT:** Artificial Intelligence, Data Structures, Algorithm Design, Computer networks, Introduction to Computing Systems and Programming Python, C++

Research Intern

Computational Social Science Lab, ETH Zürich

📅 July 2016 – Sep. 2016 📍 Zürich, Switzerland

- Developed a publish-subscriber system for the existing "Dynamic Intelligent Aggregation Service (DIAS)" intended to aggregate and disseminate various sensor data across large number of nodes in a secure way. (<https://www.nervousnet.ethz.ch>) Java

VOLUNTEER EXPERIENCE

Admin, Mentor

UvA Inclusive AI

📅 Oct. 2020 – Now 📍 Amsterdam, Netherlands

- Mentoring the underrepresented students of the UvA AI masters program. Organize events and workshops, financing students to attend conferences. <https://ivi.fnwi.uva.nl/ellis/inclusive-ai/>

Volunteer

AIESEC Poland

📅 July 2015 – Sep. 2015 📍 Kielce, Poland

- Managed the team of 10 interns from 8 different countries. Conducted seminars for NGOs and museums with the purpose of raising the cultural and social awareness among Polish people about Iran.

ICX Team Leader

AIESEC Iran

📅 Sep 2015 – June 2016 📍 Tehran, Iran

- Designed and promoted projects, recruited volunteers and took part in several leadership workshops within AIESEC.

SCHOLARSHIPS

- *University of Tehran Supporters Foundation Scholarship as the 1st ranked IT student*, University of Tehran, 2016 – 2017
- *F.O.E.(Faculty of Engineering) award as the 1st ranked IT student of the year.*, University of Tehran, 2015–2016