Sahar Dastani Oghani

Github: github.com/Sahardastani
LinkedIn: linkedin.com/in/sahar-dastani-a2aab0186
Website: Sahardastani.github.io
Email: sahar.dastani4776@gmail.com
Phone: (+1) 4382709131

EDUCATION

- **École de technologie supérieure (ÉTS),** Montreal, Canada (2022- 2026)
  PhD in Computer Science.
  Thesis: Learning spatio-temporal representations for medical data processing.
  Overall GPA: 4.3/4.3
- **Amirkabir University of Technology,** Tehran, Iran (2020- 2022)
  M.Sc. in Computer Science, Major: Soft Computing and Artificial Intelligence.
  Thesis: 3D Human Pose Estimation Using Neural Networks.
  Overall GPA: 4/4
- **Amirkabir University of Technology,** Tehran, Iran (2016- 2020)
  B.Sc. in Computer Science.
  Overall GPA: 3.18/4 (Last two years: 3.84/4)

RESEARCH INTERESTS

- I am interested in computer vision, self-supervised learning, out-of-distribution generalization, and medical imaging.

WORKING EXPERIENCE

- **Machine Learning Researcher at CHU Sainte-Justin - mother and child hospital of Montreal**, Montreal, Canada (2022-2026)
- **Machine Learning Researcher at Mila - Quebec AI Institute**, Montreal, Canada (2022-2026)
- **Machine Learning Expert at Holoo Software Engineering Company**,Tehran (Summer 2021)
  - Developing a Recommender System application for Holoo accounting and financial software.

TEACHING EXPERIENCE

- **Artificial Intelligence Teacher Assistant at the Amirkabir University**
- **Machine Learning Teacher Assistant at the Amirkabir University**
  - Under supervision of Dr. Mohammad Akbari (Fall 2021)
  - Responsibilities included holding problem solving sessions, course lectures, setting and grading homework, projects and exams.

HONOURS AND AWARDS

- **Ranked 1st** among M.Sc students of Soft Computing and Artificial Intelligence whom started their graduate studies in the academic year of 2020-2021.
- **Ranked within the top 0.1%** in Iran's 2020 National Universities Entrance Exam for computer science master's program.
- **Ranked within the top 2%** in Iran's 2016 National Universities Entrance Exam.

RELEVANT COURSES

Ph.D. in Computer Science:
- Representation Learning(A+: 4.3/4.3)

M.Sc. in Computer Science:
- Advanced AI(18.4/20)
- Machine Learning (18.5/20)
- Deep Learning (18.5/20)
- Advanced Algorithms (20/20)
- Computational Data Mining (20/20)

B.Sc. in Computer Science:
- Artificial Intelligence (20/20)
- Bioinformatics (20/20)
- Graph Theory (19/20)
- Numerical Analysis Foundation(18.3/20)
- Linear Optimization (16.5/20)
- Nonlinear Optimization (17.5/20)

Note: Amirkabir university changed its scoring system from numeric to alphabetic during coronavirus pandemic.
- Data Mining (A+)
- Numerical Analysis(A+)

- Numerical Linear Algebra (A+)
- Theory of Computation (A+)

SELECTED PROJECTS

- **Holoo Software Engineering Company**, Tehran, Iran
  - **Recommender System:** Implemented a recommender system that offers products to customers based on their interests. In this way, I used weighted collaborative filtering, association rules, customers' click-through rate in the Holoo retail website, context-aware recommender system techniques to find customers' interests, and the combination of collaborative filtering and demographics to tackle the cold start problem. I also benefit from deep learning techniques to build a convolutional neural network (CNN) based recommender system for processing multi-media data.
- **Amirkabir University of Technology**, Tehran, Iran
  - **Masters Thesis:**
    - **Human Pose Estimation using Neural Networks:** Classified the final 3D human poses using multi-view learning in an occlusion scenario and addressed the inherent ambiguity in 2D to 3D lifting by utilizing a deep conditional variational autoencoder (CVAE).
  - **PhD Project:**
    - **Relational UNet for Image Segmentation:** Introducing a new architecture, a Relational UNet-based model for semantic segmentation of medical images. We re-interpreted the original idea of RSA for depth relations and the UNet base architecture to learn such relations in a long-range manner along with spatial relations.

COMPUTER SKILLS

- Programming Languages:
  - Expert: Python, Matlab, C++, C
  - Familiar: LaTex, R
- Machine Learning Libraries: Numpy, Pandas, Scikit-Learn
- Deep Learning Platforms: Pytorch, Keras, TensorFlow

LANGUAGE SKILLS

- Persian: Native
- English: Fluent (IELTs: 6.5/9)
- German: Elementary (ÖSD A2: 90/90)

REFERENCES

- **Prof. Samira Ebrahimi Kahou** (PhD Supervisor)
  École de technologie supérieure
  Email :samira.ebrahimi-kahou@etsmtl.net
  Phone : +1 514 396 8800
- **Prof. Rita Noumeir** (PhD Co-Supervisor)
  École de technologie supérieure
  Email : rita.noumeir@etsmtl.ca
  Phone : +1 514 396 8671
- **Dr.Mohammad Hassan Shirali-Shahreza** (Master Supervisor)
  Amirkabir University of Technology
  Email : hshirali@aut.ac.ir
  Phone : +98 21 64542548
- **Dr. Mohammad Akbari** (Master Advisor)
  Amirkabir University of Technology
  Email : akbari.ma@aut.ac.ir