

Armin Saadat

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EDUCATION

University of British Columbia

Sep. 2022 - (Exp) May. 2024

M.Sc. in Electrical and Computer Engineering - Applied Science

Vancouver, BC, Canada

Related courses: Deep Learning (A) - Constrained Optimization & Image Processing (A) - Machine Learning (Teaching Assistant)

Sharif University of Technology

Sep. 2017 - May. 2022

B.Sc. in Computer Engineering - GPA: 3.85/4 (Ranked among top 10 students)

Tehran, Iran

Ranked 1st in courses: Machine Learning, Artificial Intelligence, Linear Algebra, Probability & Statistics, Algorithm Design, Calculus

PUBLICATIONS

• 3D Human Pose Forecasting with Uncertainty

Armin Saadat, Saeed Saadatnejad, Taylor Mordan, Alexandre Alahi.

submitted to CVPR 2023

• Efficient 3D Image Segmentation via Context Completion

Armin Saadat, Mahdieh Soleymani Baghshah.

submitted to CVPR 2023

• Towards Human Pose Prediction using the Encoder-Decoder LSTM - [link to abstract](#)

Armin Saadat, Nima Fathi, Saeed Saadatnejad.

published in ICCV 2021

RESEARCH & PROFESSIONAL EXPERIENCE

University of British Columbia

Sep. 2022 - (Exp) Sep. 2024

Machine Learning Researcher - Advisor: Prof. Purang Abolmaesumi

Vancouver, Canada

- Designed and tuned an unsupervised learning method to estimate ejection fraction based on clinical ultrasound images. (Ejection fraction is a crucial biomarker of heart failure.)
- Implemented a Graph Convolutional Network capable of 1) Interpreting the systolic and diastolic cardiac cycles, and 2) Outperforming the state-of-the-art by over **15%** with a much lower number of parameters compared to prior work.

Swiss Federal Institute of Technology Lausanne (EPFL)

Jul. 2021 - Nov. 2021

Research Assistant - Advisor: Prof. Alexandre Alahi

Lausanne, Switzerland

- Developed a comprehensive library in PyTorch for pose prediction, supporting over 10 models and 10 datasets.
- Won **3rd** place in the **Stanford Challenge** on Social Motion Forecasting: [source-code](#)
- Implemented and tuned a Recurrent Neural Network for human pose prediction & forecasting the trajectory of pedestrians.

Sharif University of Technology

Jan. 2022 - Jul. 2022

Research Assistant - Advisor: Prof. M.Soleymani Baghshah

Tehran, Iran

- Proposed and implemented a weakly-supervised segmentation method to label 2D slices of 3D data. [source-code](#)
- Combined U-Net with LSTMs to take advantage of the sequential information of consecutive slices, and improved the state-of-the-art by **5%** on abdominal datasets.

Analysaur | A Startup on Digital Marketing and Advertising

Jul. 2019 - Aug. 2020

Data Science Engineer - Product Manager

Tehran, Iran

- Created an all-in-one online platform connecting buyers, sellers, and advertisers in social media.
- Programmed in Python, JavaScript, GO; using frameworks like Django, ReactJs, and VueJs.

Weblite | The Largest Online Educational Platform in Iran

Jan. 2019 - Jun. 2019

Software Development Engineer

Tehran, Iran

- Developed Weblite messenger, the core of the platform, using VueJs.
- Designed and developed the back-end, database, and API of several applications used in the platform.

HONORS AND AWARDS

- UBC Graduate Support Initiative (GSI) Award Recipient 2023
- Vector Scholarship in Artificial Intelligence Recipient 2022
- Ranked among top 0.01% participants in the Iranian National Universities Entrance Exam 2017
- Member of the Iran's National Elites Foundation 2017 - 2022

TECHNICAL SKILLS

Programming Languages: Python, Java, C, C++, JavaScript

Frameworks & Libraries: PyTorch, PyTorch Geometric, NumPy, OpenCV, Scikit-Learn, Pandas, Django, VueJs

Developer Tools: Git, Trello, Jira, L^AT_EX, Google Cloud Platforms