Ali Banaei

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Education

2021–Present **Master of Machine Learning**, *KTH Royal Institute of Technology*, Stockholm.
- GPA: -

2016–2020 **Bachelor of Computer Engineering**, *Sharif University of Technology*, Tehran.
- GPA: 17.97/20 via 133 credits (19.1/20 in last two years)

2012–2016 **Diploma in Mathematics and Physics**, *Sayyed Razi High School(Sampad)*, Tehran.
- GPA : 19.70/20

Research Interests

Machine Learning, Bioinformatics, Neuroscience.

Honors & Awards

2016-08 **Iranian University Entrance Exam**, 47th place among students in Iranian University Entrance Exam(Konkur).

2020-05 **Offered A Tuition-Free Master's Program as an Excellence Award**, Sharif University of Technology, (Exempt from Nationwide Master's Entrance Exam).

Research Experiences

2021-present **Protein-Protein Interaction and Folding Prediction using Deep Learning**, *KTH Royal Institute of Technology*, Division of Robotics, Perception and Learning .
Trying to predict the interaction of proteins inspired by the state-of-the-art folding prediction Deep Learning based algorithms.

2018-2020 **Applications of Deep Learning in Communication**, *Sharif University of Technology*, INL Lab.
Researching the intersection of Machine Learning and Computer Networks under supervision of Dr.Jafari. Our work was concerned with enhancing the quality of data transmission, in particular images, through noisy networks using machine learning methods.

Publications

2020 Estiri A, Sabramooz M, Banaei A, Dehghan A, Jami B, Jafari M. **"A Variational Auto-Encoder Approach for Image Transmission in Noisy Channel"**, *International Symposium on Telecommunications 2020*.
Contributed to the implementation of the VAE model. Also, responsible for improving the quality of images using Perception-based Image Quality Assessment Metrics.

Experiences

January–June 2017	**Teacher Assistant of Advanced Programming**, *Sharif University of Technology*, Tehran.
September–December 2018	**Teacher Assistant of Computer Networks**, *Sharif University of Technology*, Tehran.
December 2019–June 2020	**Teacher Assistant of Computer Networks**, *Sharif University of Technology*, Tehran.
December 2019–June 2020	**Teacher Assistant of Embedded Systems Design**, *Sharif University of Technology*, Tehran.
September 2020–today	**Teacher Assistant of Game Theory**, *Sharif University of Technology*, Tehran.

Computer Skills

Advanced	Java, Python, C, Keras/TensorFlow, Python Machine Learning and Data Analysis Tools(Pandas, Numpy, Scikit-Learn, Scipy)
Familiar	C++, Pytorch, R, MySQL, Git, Django, HTML, CSS, LaTeX, bash

Relevant Courses

Fall 2018	**Linear Algebra**, *16.9 / 20*.
Fall 2018	**Artificial Intelligence**, *20 / 20*.
Spring 2019	**Foundations of Neuroscience**, *16.9 / 20*.
Spring 2019	**Introduction to Bioinformatics**, *20 / 20*.
Spring 2020	**Machine Learning in Bioinformatics**, *19.8/20*, (Graduate Course).

Languages

English	*Advanced*
Persian	*Mother Tongue*

Academic Projects

2016–2017	**News Classifier Project**, *Sharif University of Technology*. Fundamental of Programming with C
2017–2017	**Farming Game**, *Sharif University of Technology*. Advanced Programming with Java
2017–2108	**Design and Programming Joystick with Arduino**, *Sharif University of Technology*. Computer Structure and Language
2018–2018	**IJVM Emulator**, *Sharif University of Technology*. Computer Architecture

2018–2018 **House Renting Website**, *Sharif University of Technology*.
System Analysis and Design

2018–2018 **P2P Network and Protocol Design and Implementation**, *Sharif University of Technology*.
Computer Networks

2018–2018 **Data Classification with Machine Learning**, *Sharif University of Technology*.
Artifical Intelligence

2018–2019 **Smart Door Lock Design and Implementation**, *Sharif University of Technology*.
Internet of Things

2018–2019 **Microarray Data Analysis**, *Sharif University of Technology*.
Introduction to Bioinformatics

2018–2019 **Analysis of Visual Features for Cortical Complex Cells**, *Sharif University of Technology*.
Foundations of Neuroscience

2019–2020 **Drug-Target Binding Affinity Prediction Using Deep Learning**, *Sharif University of Technology*.
Machine Learning in Bioinformatics

2020–2021 **Real Time scheduler for Arduino**, *Sharif University of Technology*.
Real Time Systems

Hobbies and Interests

○ Movies
○ Swimming
○ Sleeping