

# SEPEHR JANGHORBANI

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## EDUCATION

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**Rutgers University** *Jan. 2017 - Present*  
PhD Candidate **GPA: 3.92/4.0**  
Department of Computer Science (Concentration: Machine Learning)

**Sharif University of Technology** *Sep. 2011 - Jul. 2016*  
Bachelor of Science **GPA: 17.16/20.0**  
Department of Computer Engineering

## RESEARCH EXPERIENCE

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**Disney Research Los Angeles** *May.2018- Aug 2018*  
Worked with the Deep Learning and Natural Language Processing team to develop a knowledge extraction model from natural language as well as a conversation topic modelling system using deep neural networks.

**Rutgers University Machine Learning and NLP Lab** *May.2017- Present*  
Working on **Deep Learning** models applicable to problems in **feature representation learning**, **Knowledge Representation** and **Structured Deep Inference Models**.

**Sharif Machine Learning, Big Data Analysis and Bioinformatics Lab** *2014-2016*  
Worked under the supervision of Prof. S.A Motahari on proposing a Bayesian method for **statistical association of population-structured data** and disease-causing genes using MCMC.

## PUBLICATIONS

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**Topic Spotting using Hierarchical Networks with Self Attention** NAACL 2019

**Domain Authoring Assistant for Intelligent Virtual Agents** AAMAS 2019

**Statistical Association Mapping of Population-Structured Genetic Data**  
IEEE Transactions on Computational Biology and Bioinformatics

## HONORS & AWARDS

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**Awarded 5000\$ Fellowship for Excellence** (Awarded based on credentials and the advisors recommendation at the time of admission) *2017*

**Ranked 237th (among the top 0.1%)** in the National University Entrance Exam (Konkour) which had **more than 300,000** participants across the nation. *2011*

**Admission to Sharif University of Technology**, the best and most prestigious university in the country. *2011*

**Ranked 11th** in the Statewide Students Educational Progress Competition, which had **more than 76000** participants across the state. *Fall 2006*

**Ranked 1st** in the Students Scientific Competition, in which **more than 100** students participated across the state. *Fall 2003*

**Member of National Organization for Development of Exceptional Talents** *2004 - Present*  
NODET student selection exam is held every year nationwide for students starting middle and high school. The organization is responsible for a number of schools across the country in addition to training the top students on a more advanced level in every field of study.

## **OTHER SELECTED PROJECTS**

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- Unsupervised Object Detection Using Structured Latent Models
- Introducing a Novel Method for Deep Feature Representation Learning
- A Generalized Method for Fake News Classification using deep Bi-lstms
- Simulating Crowd Behavior using Deep Generative Models without Supervision
- Classifying Motor Movements from EEG Data Using a Spiking Neural Network

## **TEACHING EXPERIENCE**

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### **Rutgers University**

*2017-2018*

Discrete Structures, Computer Programming: Contributed to curriculum design, actively designed course projects and assignments, conducted recitations and taught the class:

### **Sharif University of Technology**

*2014-2016*

Artificial Intelligence, Digital Electronics, Computer Architecture

## **TECHNICAL SKILLS**

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**Programming Languages:** Python, C, C++, Java, MATLAB, Prolog, Verilog.

**Deep Learning Tools :** Tensorflow, Pytorch, Scikit Learn, Gensim

**Tools:** ModelSim, Altera Quartus, Packet Tracer, Wireshark, HSPICE, PSPICE, Codevision AVR, EEG-Sampler

## **RESEARCH INTERESTS**

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Deep Learning

Computer Vision

Variational Inference

Natural Language Processing

Feature Representation Learning