

# Parsa Pazhooeshy

COMPUTER SCIENCE PHD STUDENT AT UNIVERSITY OF TORONTO

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*"Thus we may have knowledge of the past but cannot control it; we may control the future but have no knowledge of it."*

Claude Shannon

## Education

### University of Toronto

NU lab, Toronto, Canada

DIRECT PHD IN COMPUTER SCIENCE

2020 - EXP:2025

- Under Supervision of Prof. Y Ganjali
- Working on the Role of Machine Learning in Enhancing Current Networking Systems

### Sharif University of Technology

Tehran, Iran

BSC IN ELECTRICAL ENGINEERING

2015-2020

- GPA: 18.12/20

## Fields Of Interest

**Computer Networks**, Protocol Design, Measurement and Performance Analysis, Congestion Control, Computer Privacy and Security

**ML for Networking**, Enhancing congestion control protocols using ML, load balancing using time series prediction

## Previous Research Projects

### Computer Networks and Systems group, Max Planck Institute for Software Systems

Saarbrücken, Germany

RESEARCH INTERN UNDER SUPERVISION OF **DR. KEON JANG**

June. 2019 - Sept. 2019

- Based on TCP protocol and focused on flow detection by modifying TCP protocol using NS2 source code for TCP
- Our goal is to develop an algorithm based on correlation between the sent packets and received packet for finding the number of competing flows respect to isolation of flows

### Cloud-native Telecommunications Networks Lab

Sharif University of Technology

RESEARCH STUDENT UNDER SUPERVISION OF **PROF. BH KHALAJ** AND **DR. A RAVANSHID**

Dec. 2018 - June. 2019

- Study on SDN, focused on RAN slicing
- Implement a Dynamic TDD Frame Reconfiguration. Our main objective is to form service-specific network slices based on traffic prediction and the inter-node interference

### Cloud-native Telecommunications Networks Lab

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Jun. 2018 - Dec. 2018

- A full study on 3G, 4G and 5G systems, focused study on CU-DU splitting using OpenAirInterface Code
- We implemented F1 interface on the previous test-bed available in the Lab

## Honors and Awards

- Fellowship as a visiting scholar from **Max Planck Institute for Software Systems**.
- Awarded scholarship from **Iran's National Elites Foundation since 2015**.
- Ranked **32th** in the Entrance Exam (Konkur) among more than 181000 candidate all over the country.

## Course Projects

### Intro. to ML

University of Toronto

PROF. MARZIEH GHASSEMI

- Song Genre Classification based on Song's lyrics using LSTM , BERT and NLP method like TF-IDF

### Topics in Computational Social Science

University of Toronto

PROF. ASHTON ANDERSON

- Bitcoin Sentiment Analysis using Twitter Data

### Information theory

Sharif University of Technology

DR.M MIRMOHSENI

- A research on Secrete key capacity
- Modeling Common randomness via Markov chain and finding computationally effective upper and lower bound for capacity

### Data Networks

Sharif University of Technology

DR.MR PAKRAVAN

- Developing a python based chat application ,with real world concepts like NAT and misbehaving TCP Receivers. Used different transport protocols like TCP CUBIC, TCP Reno, TCP Vegas.

## Skills

<b>Programming:Advanced</b>	Python,Matlab,NS2,NS3
<b>Programming:Basic</b>	C,C++,Go,Verilog
<b>Software</b>	Wireshark,Althium,Hspice,Pspice
<b>Languages</b>	Persian,English(TOEFL score:117,R:30,L:29,S:28,W:30)

## Selected Graduate Courses

<b>Introduction to Machine Learning</b> , Prof. Marziyeh Ghassemi (UofT)	A+
<b>Algorithms for Private Data Analysis</b> , Prof. Aleksandar Nikolov (UofT)	A+
<b>Algorithms for Collective Decision Making</b> , Prof. Nisarg Shah (UofT)	A+
<b>Topics in Computational Social Science</b> , Prof. Ashton Anderson (UofT)	A-
<b>Data Networks</b> , Dr.MR Pakravan (Sharif University)	19/20
<b>Information Theory</b> , Dr.M MirMoheseni (Sharif University)	19.4/20

## Teaching Experience

2019-2020 **HW Designer and Grader**, Data Networks by Dr.MR Pakravan

2018-2019 **Matlab HW Designer and Grader**, Communication Systems by Dr.BH Khalaj

2018-2019 **Teaching Assistant for designing Quiz** , Communication Systems by Dr.MR Pakravan

2018 **Matlab HW Designer and Grader**, Signals and Systems by Dr.BH Khalaj

2017-2019 **HW Designer and Grader**, Linear Control Systems by Dr.A Farhadi

2018-2019 **Matlab Project Designer**, Signals and Systems Systems by Dr.H Behroozi

2018 **Matlab HW Designer and Grader**, Signals and Systems by Dr.H Aghajan

2018-2019 **Matlab HW Designer and Grader**, Communication Systems by Dr.H Behroozi