



# Fatemeh Nikpanjeł

Physics M.Sc. Student | Data Analyst

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in Fatemeh Nikpanjeh

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#### WHO AM I?

I am currently in the last semester of my master's degree in physics, with a focus on complex systems, and a strong passion for data science and machine learning. Throughout my academic journey, I have taken a proactive approach in expanding my knowledge and skills in these areas by completing online courses and projects that have helped me develop a solid understanding of the fundamental concepts. My background in complex systems, closely related to data science, provides me with a unique perspective that I am eager to bring to the table. Additionally, I am a team player and have strong communication and interpersonal skills which I believe will be valuable assets in any professional setting.

EDUCATION .....

2021 - Present



### **Master of Science in Physics** Shrif Univeristy of Technology %

Tehran, Iran

Research Area: Complex Systems GPA: 18.27 / 20.00

2016 - 2021



#### **Bachelor of Science in Physics** Shahid Beheshti University

Tehran, Iran

TRanked 7<sup>th</sup> in National Scientific Physics Olympiad for University Students

Ranked among the top 15% of the graduating class

#### ACADEMIC PROJECTS

• If you want to check out some of my sample codes and learning mini-projects, feel free to visit my GitHub page %.

Mar. 2022 - Present

### **Dynamical Analysis and Control of Tipping Cascades in Complex Systems** Supervisor: Prof. M. Reza Rahimi Tabar

- · Analysis of the effects of interaction strength and network topology on the size of tipping cascades.
- · Study of the controlability of tipping cascades in various networks, considering parameters such as control time horizon and cost of control.
- · Examination of the impact of higher-order interactions on tipping cascades and their control.
- Development of a data-driven approach to identify early warning signals for tipping cascades.

Relevant Skills:

Numerical Simulation Dynamical Systems

Sep. 2019 - Feb. 2020 Footprint of Network Modularity in The Spectrum of Eigenvalues of Adjacency Matrix Supervisor: Prof. Seyed Ali Hosseiny

· Investigated the relationship between network modularity and the spectrum of eigenvalues of the adjacency matrix in large random networks.

Relevant Skills

#### LANGUAGES

Persian

Mother tongue



C1 Proficient User

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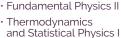
Turkish

B1 Independent User



**EXPERIENCES** 

**Teaching Assistant** 



Chair and Member of The Board of The Scientific Association of Physics SBU % Fall 2020

Spring 2021

2016-2019

## TEST SCORES Physics GRE

Sep. 2021

**Total score**: 840 (70%)

· Classical Mechanics: 86 (76%) • Electromagnetism: 85 (74%)

Quantum Mechanics: 84 (73%)

