Nasrin **Karimi**

📱 (+98) 936 428 8240 | 🏠 iamnasrinkarimi.github.io | ✉ Gmail | ⭕ GitHub | in LinkedIn

Education

M.Sc. in Electrical Engineering (Field and Waves Communications)   *Tehran, Iran*
Faculty of Electrical and Computer Engineering, Shahid Beheshti University   *Sep. 2022 - Present*
- **Cumulative GPA: 3.8/4 - Ranked 1ˢᵗ among graduate students**

B.Sc. in Electrical Engineering   *Tehran, Iran*
Faculty of Electrical and Computer Engineering, Shahid Beheshti University   *Sep. 2018 - March 2022*
- **Cumulative GPA: 3.34/4, Last two years: 3.6/4, Final year: 3.7/4**
  (Has Finished in 7 Semesters (rather than 8))

Diploma in Mathematics & Physics   *Tehran, Iran*
Shahed Muallem High school and Pre-University   *Sep. 2014 - Sep. 2018*
- **Cumulative GPA: 19.59/20**

Research Interests

Machine Learning, in general and
Deep Learning and Neural Networks, in particular with applications in
Field and Waves Communications, and
Wireless Communications.

Theses

A Review on **Imaging Radars** and **Resolution** Enhancement Using **Machine Learning** Methods (Seminar)   *Tehran, Iran*
Faculty of Electrical and Computer Engineering, Shahid Beheshti University   *Present*
- **Supervisor: Prof. Esfandiar Mehrshahi**

Link Quality Estimation of **Wireless Communications** with **Machine learning** Algorithms Using **SVM**   *Tehran, Iran*
Faculty of Electrical and Computer Engineering, Shahid Beheshti University   *Feb. 2022*
- **Supervisor: Prof. Reza Asvadi   Score: 19.25/20**

Honors & Awards

2022 Offered **Straight Admission of M.Sc. (Telecommunication Systems)**,
Faculty of Electrical and Computer Engineering, Shahid Beheshti University
2022 Offered **Straight Admission of M.Sc. (Field and Waves Communications)**,
Faculty of Electrical and Computer Engineering, Shahid Beheshti University
2018 **Within 0.5% place among more than 156,000 participants**,
Nationwide Universities Entrance Exam (B.Sc.)
2017 **Ranked 1ˢᵗ** , Chemistry Laboratory Competition, District 4, Tehran, Iran
2017 **Ranked 1ˢᵗ** , Electronic Content Competition, District 4, Tehran, Iran

Experiences_____

Research Assistant   *MCI & Shahid Beheshti University, Tehran, Iran*
MCI (Mobile Telecommunication Company of Iran)   *Oct. 2022 - Apr. 2023*
- Optical Transmission Networks (**5G Communications**)
- Dedicated Fiber (5G Communication)
- Passive Optical Network (5G Communication)
- CPRI over Ethernet (5G Communication)
- OFDM/FDM/... (5G Communication)

Under Supervision of **Prof. Esfandiar Mehrshahi** & **Prof. Alireza Gholipour**

Work Experience
Telecommunication Engineering Intern   *MCI, Ardebil, Iran*
TCI (Telecommunication Company of Iran)   *Summer 2021*
- The Components of the Telecommunication Technical Center (Switching, Cable, Control, etc. Rooms)
- Registering Phone Failures
- Concept of Traffic, Volume and its Measurement Methods
- Type of Networking System (LAN, MAN, WAN,...)
- Optimization Software
- Mechanism of Switching Networks, ...

Under Supervision of **Prof. Reza Asvadi**

Teaching Experience
Linear Algebra   *Semester Spring 2023*
- **GitHub** | Under Supervision of **Prof. Esfandiar Mehrshahi**

Telecommunication Circuits   *Semester Spring 2023*
- **GitHub** | Under Supervision of **Prof. Shokrollah Karimian**

Technical Language   *Semester Spring 2023*
- **GitHub** | Under Supervision of **Prof. Shokrollah Karimian**

Telecommunication Circuits   *Semester Fall 2021*
- **GitHub** | Under Supervision of **Prof. Shahrooz Asadi**

Physics   *Semester Fall 2021*
- **GitHub** | Under Supervision of **Prof. Gholam-Mohammad Parsanasab**

Notable Courses_____

Principles of Communication Systems (19.25/20) - Telecommunication Circuits (19.5/20) Advanced Engineering Mathematics (18.5/20) – Convex Optimization (18/20) – Metamaterials (19/20) - Active Microwave Circuits (18.5/20) - Filter and Circuit Synthesis (18/20) - Computer Programming (17/20) - Microprocessor and Computer Structure Lab. (18.8/20) - ASIC/FPGA Circuits (19.87/20) - Electronic Physics (20/20) – Electronics (III) Lab. (20/20).

Workshops & Certificates_____

18 Aug. 2023   **Supervised Machine Learning: Regression and Classification**,
Prof. Andrew NG   *Stanford, Deeplearning.ai*

11 Aug. 2023	**Linear Algebra for Machine Learning and Data Science**,	
Dr. Luis Serrano		*Deeplearning.ai*
23 July 2023	**Managing Emotions in Times of Uncertainty & Stress**,	*Yale*
9 July 2023	**Programming for Everybody (Getting Started with Python)**,	
Prof. Charles Severance		*University of Michigan*
June - July 2021	**Workshop on Machine Learning**	*IEEE*
June 2020	**Verilog Programming Language**	*Shahid Beheshti University*
Electrical Engineering Students Scientific Association		

Skills_____

Programming Languages   Python, MATLAB, C/C++, Verilog > JavaScript, HTML
Software   Proteus - Arduino – Multisim – Dialux - Code Vision – ADS – CST
Hspice – Visual Code Studio – Xilinx – Office - Altium Designer - Qucs – Octave

Languages_____

Persian, Azerbaijani   Mother Language (Native)
Turkish, Chinese, Korean Beginner
English   **IELTS** (Oct. 20, 2022) **Overall 7 (Reading: 8.5, Listening: 7.5, Speaking: 6.5, Writing: 6)**

Projects_____

ADS, CST, Altium Designer
- **Design and Fabricate** a **Metamaterial** Unit cell for **CRLH Bandpass Filter** with specific Characteristics
- **Design** a **Coplanar Wave Guide** and **Microstrip Line** with the specific 77 ohms Characteristic Impedance

MATLAB
- **Analog Modulation (DSB, USSB, … + Demodulation)** | **GitHub**
- **Echo and Noise Removing** | **GitHub**

Python
- **Yes/No Audio Verification** | **GitHub**
- Solving **Sudoku Tables** using **Optimization** | **GitHub**

Arduino + Proteus
- **4 Floor Elevator + Ground floor** with **Many Features** | **GitHub**
- **Museum Protector** | **GitHub**
- **Smart Dustbin, RGB Bedside Lamp, Smart Flower**

Verilog + Xilinx
- **Detecting Edge of Pictures** | **GitHub**

C++
- **Calculator (**with **many features)** | **GitHub**

Activities_____

NOA Entrepreneurship Event   *(Present) Summer – Fall 2023*
Science and Technology Park of Shahid Beheshti University, Tehran, Iran

(Accepted Team as First Stage – Smart Lamp)

Tehran Investment Summit International Event   *Summer 2022*
(Accepted Team – Smart Dustbin)   *Milad Tower, Iran, Tehran*
NOA Entrepreneurship Event   *Winter – Spring 2021*
                                  Science and Technology Park of Shahid Beheshti University, Tehran, Iran
(Accepted Team – Smart Audio Assistant)
Spaghetti Bridge Competition   *Winter 2019*
Shahid Beheshti University – Tehran – Iran
IEEE   *Summer 2020*
- IoT based Decentralized Architectures for Flexibility Service Provision Webinar
- Frequency Control in Low-Inertia Power Systems Webinar
- Vision, Roadmap and Strategy of Electricity Industry (Energy, Information Technology and
- Interdisciplinary Industries) Webinar
- Haptic Technology in Intra ocular Surgeries Webinar

Soft Skills_____

Teamwork – Time Management – Decision Making – Adaptable to Change – Problem Solving

Hobbies_____

Cars! – Excersize – Reading – Painting – Games – Robotics – Watching Movie – Motor bicycles!

References_____

Prof. Esfandiar Mehrshahi | Associate Professor
Faculty of Electrical and Computer Engineering, Shahid Beheshti University
- Email: mehr@sbu.ac.ir

Prof. Shokrollah Karimian | Assistant Professor
Faculty of Electrical and Computer Engineering, Shahid Beheshti University
- Email: dr.s.karimian@gmail.com

Prof. Reza Asvadi | Assistant Professor
Faculty of Electrical and Computer Engineering, Shahid Beheshti University
- Email: r_asvadi@sbu.ac.ir

Prof. Alireza Gholipour | Assistant Professor
Faculty of Electrical and Computer Engineering, Shahid Beheshti University
- Email: a_gholipour@sbu.ac.ir

Prof. Gholam-Mohammad Parsanasab | Assistant Professor
Faculty of Electrical and Computer Engineering, Shahid Beheshti University
- Email: gm_parsanasab@sbu.ac.ir