Saeed Jafari

Electrical and Computer Engineering

SKILLS

- **Python** 6+ yrs
- **MATLAB** 6+ yrs
- **C** 5+ yrs
- **FPGA** 3+ yrs
- **Cisco Packet Tracer** 1+ yrs
- **R** 1+ yrs

CONTACT

jaafaris.github.io

Saeed Jafari

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EDUCATION

University of Toronto — Entry May 2024
Ph.D. in Electrical and Computer Engineering

Supervisor: Prof. Deepa Kundur

University of Tehran — Sep. 2020 - Sep. 2023
M.Sc. in Communication-Security

GPA: 17.94 / 20
Thesis Title: Intrusion Detection in Vehicular Ad-hoc Networks (VANET) Using Post Processing Approaches (Details)
Under the Supervision of Prof. Mohammad Sayad Haghighi

Isfahan University of Technology — Sep. 2015 - Sep. 2019
B.Sc. in Electrical Engineering

Final Project Title: Image Processing Techniques for Crowd Density Estimation (Details)
Under the Supervision of Prof. Mohammad Mahdi Naghsh

WORK STUDY

University of Toronto — May 2024- Sep. 2024
Researcher-Persian Archives

Developing a GPT-Based Translation Engine: Exploring Capabilities and Applications

TEACHING ASSISTANCE

ECE DEPT. University of Tehran — Sep. 2022 - Feb. 2023
Teaching Assistance

- **Statistical Inference**- Under the Supervision of Dr. Behnam Bahrak
  Duties:
  - Helping the instructors in designing the assignments
  - Preparing detailed solutions and solving questions for class
  - Marking assignments
- **Advanced Network Security**- Under the Supervision of Dr. Mohammad Sayad Haghighi
  Duties:
  - Preparing detailed solutions and solving questions for class
  - Marking assignments and programming projects

SELECTED COURSES

- Performance Evolution of Computer Systems (20/20)
- Computer Networks LAb (20/20)
- Advanced Computer Networking (19.6 / 20)
- Digital System Design I (19 / 20)
- Statistical Inference (18.7 / 20)
- Interface Circuit Design (18.6 / 20)
- Principles of Wireless Communications (18/20)
- Engineering Mathematics (18/20)
- Machine Learning (17.9/20)
- Computer Programming Fundamentals (17.9/20)
- Digital Signal Processing Lab (17.7/20)
- FPGA Lab (17.5/20)
- Cryptocurrencies (17.4/20)
- Advanced Computer Mathematics (17.2/20)
- Statistical Methods (17.1/20)
- Advanced Network Security (17/20)
- FPGA (17/20)
- Digital Signal Processing (16.9/20)

ECE DEPT. Isfahan University of Technology Sep. 2017 - Sep.2019
Teaching Assistance

- **Digital Systems Design Lab II**- Under the Supervision of Dr. Nader Karimi
  Duties:
  - Supervising laboratory sessions
  - Laboratory work, problem sets, tests and examinations
  - Marking lab reports, exams, and assignments
  - Laboratory equipment maintenance
- **Computer Programming Fundamentals**- Under the Supervision of Dr. Mohammad Mahdi Naghsh
  Duties:
  - Helping the instructors in designing the assignments
  - Marking assignments and programming projects
  - Conducting tutorials
  - Consulting with students electrically and in-person
- **Principles of Communication Systems**- Under the Supervision of Dr. Ehsan Yazdian
  Duties:
  - Helping the instructors in designing the computer assignments
  - Conducting tutorials on computer assignments
  - Marking computer assignments
  - Teaching software (Matlab)
  - Consulting with students electrically and in-person
  - Developing tutorials for programming projects (RTL-SDR)
- **Digital Systems Design I**- Under the Supervision of Dr. Forogh Sadat Tabataba
  Duties:
  - Helping the instructors in designing the assignments
  - Preparing detailed solutions and solving questions for class
  - Marking assignments and exams
  - Consulting with students electrically and in-person

RESEARCH ASSISTANCE

ECE DEPT. Isfahan University of Technology SEPT. 2019 - APR. 2020
Research Assistance

Standards, Applications and Suitable Roadmap for Traffic Radio Communication
under the supervision of Dr. Forogh Sadat Tabataba.

TOP ACADEMIC COURSE PROJECTS

- **Advanced Network Security**: Trust Management Evaluation in Vehicular Ad-hoc Networks(VANET) (Details)
  Under the Supervision of Dr. Mohammad Sayad Haghighi

- **Cryptocurrencies**: Simple Implementation of Bitcoin Transactions and Bitcoin Address Generator (Details)
  Under the Supervision of Dr. Behnam Bahrak

LANGUAGE

- Persian: Native
- English: Advanced
  IELTS:
  Overal: 7
  - **L: 7.5**
  - **S: 7**
  - **R: 6.5**
  - **W: 6.5**

RESEARCH INTERESTS

- **Quantum Machine Learning**
- **Cyber-Physical Systems**
- **Cyberattack Detection**
- **Smart Grid Intrusion Detection**
- **Trust Management**
- **Wireless Communications**
- **Digital Signal Processing**

HONORS AND AWARDS

- Ranked among top 1% in both National-wide University entry-exams for starting of Bachelor of Science and Master of Science
- Ranked among 1% of top grad students in the department of Electrical and Computer Engineering at the University of Tehran

SCIENCE CLUB INSTITUTE

Science Club Institute
Private Teacher

Teaching Mathematics, Physics and English to high school students. Moreover, AVR, C and Matlab Programming to undergraduate students (2018 - 2021).

- **Advanced Computer Networking**: A Countermeasure for Garg et al. Scheme: An Authentication Method for V2G Networks (Details)
  Under the Supervision of Dr. Naser Yazdani

- **Cryptocurrencies**: Implementation of Split-wise Using Solidity (Details)
  Under the Supervision of Dr. Behnam Bahrak

- **Performance Evolution of Computer Systems**: Modeling Network Traffic (Details)
  Under the Supervision of Dr. Ahmad Khonsari

- **Principles of Wireless Communications**: Comparing Performances of BPSK, $\pi/4$-QPSK and QPSK Modulation Formats in AWGN Channels (Details)
  Under the Supervision of Dr. Mohammad Javad Omidi

- **Digital Signal Processing**: The Effect of Quantization Error on Coefficients in Direct, and Cascade-Based Filters (Details)
  Under the Supervision of Dr. Behzad Nazari

- **Machine Learning**: Prediction of the Age, Gender, and Facial Expressions of Humans from Images (Details)
  Under the Supervision of Dr. Mohammadreza Abolghasemi Dehaqani

- **Principles of Communication Systems**: Implementation of a Matlab-based FM Receiver Using SDR and, Designing a GUI Platform to Plot Power Spectral Density (PSD) of FM Signals Using RTL-SDR (Details)
  Under the Supervision of Dr. Ehsan Yazdian

- **FPGA**: Implementation of FPGA-Based Online FFT Analyzer with the Demonstration of Signal and it's FFT on Basic Monitors (Details)
  Under the Supervision of Dr. Ehsan Yazdian

- **Principles of Wireless Communications**: Simulating OFDM System (Details)
  Under the Supervision of Dr. Mohammad Javad Omidi

- **Computer Networks Lab**: Simulating and Implementing a Small Network (Details)