Yasamin Niknam

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Mail: yasamin.niknam1998@gmail.com
Nationality: Iranian
Born: 11 May 1998

EDUCATION

Bachelor of Science in Electrical Engineering 2016–Present
Minor in Software Engineering (GPA: 19.28/20)
University of Tehran, Tehran, Iran
Overall GPA:18.01/20, Last Year GPA:18.91/20

High School Diploma 2012–2016
Farzanehgan1 High School, Ahwaz, Iran
GPA:19.83/20

HONORS AND AWARDS

- Ranked 111^{th} among more than 156,000 participants in Iranian National University Entrance Exam in 2016
- Member of Iran's National Elites Foundation
- Ranked 14^{th} (among top 20 percent) out of 120 undergraduate students, School of Electrical and Computer Engineering, University of Tehran

TEACHING EXPERIENCE

Digital Logic Design *by Prof.Navabi* 2018–2019
Designing assignment questions and grading them.

Linear Control Systems *by Dr.Adhami and Dr.Bahrami* 2019–2020
Designing assignment questions and computer assignments, grading quizzes.

Introduction to Computer Systems and Programming *by Dr.Hashemi* 2019–Present
Designing computer assignments, holding TA sessions and grading exams as a Supervisor.

Communication Systems *by Dr.Sabaghian* 2019–Present
Designing assignment questions and grading quizzes.

Digital Signal Processing *by Dr.Akhaee* 2019–Present
Designing computer assignments.

Engineering Mathematics *by Dr.Tale' Masooleh* 2019–Present
Designing assignment questions and grading them.

Engineering Probability and Statistics *by Dr.Abolghasemi Dehaghani* 2019–Present
Designing questions for assignments and recitations.

RESEARCH EXPERIENCE

Navigation Robot Fall 2017
Designing and manufacturing of a navigational robot by executing NCY70 Optical Sensors, and AVR microcontroller coding, which is able to find the desired route and pass it without any problems.

Radiomics Fall 2017
Clustering the statistical NSCLC-Radiomics data from a number of patients via K-means Clustering, Chi-squared Test and Logrank Test concepts and then finding the relation between clinical data and survival time.

Voice Signal Processing Spring 2018
Analyzing sound samples using different filters and examining the effects of Nyquist rate alternation on signals in MATLAB.

Image Processing Spring 2018
Tampering picture resolution, specification and noise removal through the use of Wavelet Toolbox and execution of various filters, and also image compression by employing JPEG algorithm in MATLAB.

IoT Summer 2018
The design of a web platform dedicated to controlling light, temperature and moisture of a room by using Raspberry Pi.

Heart Rate Monitoring System Fall 2018
Heart rate monitoring and stress level measurement through applying a Heart Rate Sensor and an AVR microcontroller.

Digital Logic Design Lab Fall 2018
Implementing a VGA controller, a Function Generator, an "Analog to Digital Converter (ADC)", and a "Digital to Analog Converter (DAC)" in Verilog in order to program an FPGA.

Linear Control System Lab Fall 2018
The application of MATLAB's Simulink, Simmechanics and Simhydrolics for designing different kinds of controllers and applying them on a DC motor and the assessment of each controller's functionality.

Three Tank System Fall 2018
The design of a controller for a "Three Tank system" by applying a PID controller and the use of Simulink Real-Time and Simhydraulics in MATLAB for modeling real time systems.

AP Drive Fall 2018
Implementing a web platform called "AP Drive" which allows users to manage their files.The use of AP HTTP for implementation of the platform's back-end via C++ coding.

Kingdom Rush Fall 2018
Creation of a graphical platform in which two levels of the "Kingdom Rush" game have been implemented by using the SDL Library in c++.

Speaker Detection Spring 2019
Detecting the speaker of a recorded voices based on MFCC features.

Music information retrieval Summer 2019
Implementation of a system to recognize Persian Music using Machine Learning.

Classification Methods Implementation Fall 2019
Implementation of SVM, Decision Trees, Neural Network algorithms from scratch, and testing them on Fashion-MNIST dataset.

Reinforcement Learning Fall 2019
Implementation of Q-learning algorithm from scratch.

Socket Programming Fall 2019
Implementation of a client server system using socket programming in C.

Chatting System Spring 2020
Implementation of a chatting system using socket programming in Python.

Decoder Systems for Texts Spring 2020
Using Bayes Theory in order to decode an encoded text in python.

Final B.Sc. Project Present
Anomaly Detection and Tracking in chain stores in order to prevent shoplifting.

SELECTED COURSES

Design Algorithm (20/20) , **Intelligent Systems** (20/20) ,**Linear Algebra** (20/20), **Microprocessor** (20/20), **Engineering Mathematics** (19.75/20), **Advanced Programming** (19.75/20), **Data Structure** (19.1/20), **Operating Systems** (19/20), **Probability and Statistics** (18.5/20), **Communication Systems** (18.2/20), **Digital Signal Processing** (17.7/20), **Signals and Systems** (17.3/20), **Artificial Intelligence** (Ongoing), **Digital Control Systems** (Ongoing), **Computer Networks** (Ongoing)

COMPUTER SKILLS

Programming

C (Advanced), C++ (Advanced), Assembly (Advanced),Python (Advanced), MATLAB (Advanced), HTML (Intermediate), CSS (Intermediate), Bootstrap (Intermediate), Git (Intermediate), JavaScript (Familiar), Node.js (Familiar), Flask (Familiar)

Hardware Design

Verilog (Advanced), SystemVerilog (Advanced), AVR (Advanced), Modelsim (Advanced), QuartusII (Advanced), Multisim (Intermediate), Arduino (Intermediate), WireShark (Intermediate), Pspice (Familiar), Proteus (Familiar), Altium (Familiar)

Typesetting

Word (Advanced), LaTeX(Intermediate)

Operating Systems

Linux (Intermediate), Windows (Advanced)

LANGUAGES

Persian *(native),* **English** *(fluent)*

EXTRACURRICULAR ACTIVITIES

Musical Studies 2010–Present

Focusing on a classical piano repertoire for over 10 years

Tedx Keshavarz Boulevard May 2017

Working as a member of partnership in Tedx Keshavarz Boulevard