# Amirhossein Barari

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## **EDUCATION**

## B.Sc. in Computer Engineering

2016 - 2020

University of Tehran

• Overall GPA: 3.49/4 (16.79/20)

• Last two-year GPA: 3.78/4 (17.53/20)

• Thesis Title: Activity Recognition System Based on Mobile Sensors

• Thesis Grade: 19/20

• Supervisor: Dr. Kazim Fouladi

# RESEARCH INTERESTS

- Artificial Intelligence/Machine Learning/Deep Learning
- Software Engineering
- Programming Language
- Algorithms

## Awards & Honors

- Ranked within the top 3% among more than 162,000 participants in Iranian University Entrance Exam
- Full scholarship from University of Tehran (tuition waiver)

## ACADEMIC PROJECTS

# Activity Recognition System Based on Mobile Sensors | Python, C++, pandas, Matplotlib, Sckit-learn, Qt

- Bachelor's degree final project
- This Project consists of two main parts: Machine Learning and Application Development
- In the machine learning part, I used python language and its great libraries for data manipulation and data visualization and classification such as Pandas, Matplotlib and Sckit-learn.
- There are two applications for mobile and desktop in this project. I developed the desktop application with Qt which is based on C++ language.

#### Overlapping Community Detection $\mid C++$

- Big Data course final project
- Implementation of "Overlapping community detection at scale: A nonnegative matrix factorization approach" article in a group of 5 people.

#### Garam Puzzle | Python

- Artificial Intelligence course project
- $\bullet\,$  a constraint satisfaction problem implemented in python

#### Wumpus World | Prolog

- Artificial Intelligence course project
- a popular problem implemented in prolog

#### Linux Shell $\mid C$

- Operating System Lab project
- a simple Linux shell implemented in C

# Othello | C++

- Fundamentals of Computer and Programming course final project
- Othello game implemented in C++

#### Flight Booking System $\mid C++$

- Fundamentals of Computer and Programming course final project
- Flight booking system in terminal environment implemented in C++

# Design of Algorithms Teaching Assistant

University of Tehran

• Course Professor: Dr. Zahra Movahedi

## Work Experience

# Python Developer

June 2019 - Present

Fall 2018

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• Using python language and frameworks like Django and Flask

- Write and Test APIs both functional and class-based with Django Rest framework
- Write scripts with python for web scrapping

### Front-End Developer

Jan 2017 – Dec 2018

IranhometTravel

- IranhomeTravel is a startup about accommodations of tourists that three of my colleagues and I started and We have been worked on it.
- Developed with common Front-End Technologies like HTML, CSS, Bootstrap and JS

## TECHNICAL SKILLS

Languages: Python, C/C++, Java, Verilog, Prolog

Frameworks: Django, Flask, Qt

Libraries: NumPy, pandas, Matplotlib, Sckit-learn

Web/DB technologies: HTML, CSS, JavaScript, PostgreSQL

# LANGUAGE

Persian: Native

English: Fluent (IELTS: to be taken at January 16th, 2021)