# Zahra Dashtgard

*Curriculum Vitae*

## Personal Information

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| Email | **zahra.dashtgard@ut.ac.ir**. |
| Mobile | **+98 915 668 58 90**. |
| Date of Birth | **11/03/2000**. |
| Birth Place | **Qaen, Iran**. |
| Nationality | **Iranian**. |

## Education

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|---|---|
| 2018–Now | **B.Sc. in computer science**, *School of Mathematics, Statistic and Computer Science*, University of Tehran, Tehran,Iran ( GPA ( 8 semesters) : 16.90 out of 20). |
| 2014–2018 | **Diploma in Mathematics and Physics Discipline**, *Farzanegan High School (Ailiated with the National Organization for the Development of Exceptional Talents (NODET))*, South Khorasan, Qaen. |

## Teaching Experience

### Teaching Assistant

### University of Tehran

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|---|---|
| 2022–2023 | **TA**, *Algorithm Design, M. Ganjtabesh*. |
| 2021–2022 | **TA**, *Assembly, A. Nowzari*. |
| 2021–2022 | **TA**, *Principles Of Computer Systems, B. Babaali*. |
| 2020–2021 | **TA**, *Operating System, A. Khalilian*. |
| 2020–2021 | **TA**, *Algorithm Design, M. Ganjtabesh*. |
| 2019–2021 | **Head TA**, *Statistical Method, H. Missai*. |

## Research Experience

### Research Assistant

### University of Tehran

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|---|---|
| 2021–now | **RA**, *Data Science and Modeling Research Laboratory, A. Jamshidi*. |

## Publication

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|---|---|
| 2022 | **COVID-19 Diagnosis Using Respiratory Data Based on Human Voice Production System**, *Under Prepration*. |

## Skills and Qualities

### Theoretical background

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|---|---|
| Good Level | Statistical Method, Machine learning, Deep Learning, Data Science, Data Mining |
| Intermediate | Probability Theory and Statistics, Data Structures and Algorithms, Algorithm Design, Data Base, Linear Algebra, Signal Processing, Bioinformatics |

### Programming languages and tools

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|---|---|
| Good Level | C/C++, Python |
| Intermediate | R, LaTeX |
| Basic Level | Git, Assembly |

### Languages

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|---|---|
| Persian | Native |
| English | Intermediate |

## Experiences and Competitions

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|---|---|
| Aug 2020 | **Zimnat Insurance Recommendation Challenge**, *A data science event*, Zindi. |

## Relevant courses

**Statistical Learning**, *StanfordOnline*, Prof. T. Hastie and Prof. R. Tibshirani.

**Principles of Operating Systems**, *University of Tehran*, Prof. M. Kargahi.

**Statistical Methods**, *University of Tehran*, Prof. H. Missai.

**Linear Algebra**, *University of Tehran*, Prof. H. Sabzro.

**Probability and Distribution Theory I**, *University of Tehran*, Prof. S. Shameh Savar.

**Data Structure and Algorithms**, *University of Tehran*, Prof. E. Naghibzade Mashayekh.

**Data Base**, *University of Tehran*, Prof. A. Khalilian.

**Algorithm Design**, *University of Tehran*, Prof. M. Ganjtabesh.

**Bio Inspired Algorithms**, *University of Tehran*, Prof. B. Babaali.

**Artificial Intelligence**, *University of Tehran*, Prof. H. Sajedi.

**Bioinformatics**, *University of Tehran*, Prof. Z. Mousavian.

**Data Mining**, *University of Tehran*, Prof. S. Eftekhari.

**Biology**, *University of Tehran*, Prof. R. Naderloo.

## Research Interests

**Bioinformatics**.

**Biomedical Engineering**.

**Learning for Perception and Natural Language Processing**.

**Data Science**.

**Broad Competence Artificial Intelligence**.

**Foundations of Machine Learning**.
**Parallel Systems**.

## Projects

2022 **Detection and Diagnostic Approach of COVID-19 Based on Cough Sound Analysis**, *Using neural network (ResNet model)*, Python, Matlab.

2022 **Image Segmentation Using Genetic Algorithm**, Python.

2022 **Implementing SR-MCL for Identifying Functional Modules in Interaction Networks**, Python.

2022 **Implementing Hill Climbing Algorithm for Finding Minimum of Rastrigin Function**, Python.

2022 **Implementing Simulated Annealing Algorithm for Finding Minimum of Rastrigin Function**, Python.

2021 **Traveling Salesman Problem with Ant Colony Optimization**, Python.

2021 **Solving Traveling Salesman Problem using Self-Organizing Maps**, Python.

2021 **Solving Traveling Salesman Problem with Simulated Annealing**, Python.

2021 **Solving N Queens Problem by Implementing Memetic Algorithm**, Python.

2021 **Breast Cancer Detection**, *Using neural network (CNN model)*, Python.

2021 **Cool Compiler**, C.

2021 **Assembler**, Python.

2021 **Assembler**, Assembly.

2020 **House Price Prediction**, R.

2020 **Golf Play App**, *Check the weather conditions for playing golf*, R, Shiny package.

2020 **Mobile Price Prediction**, *Using multithread programing*, C.

2020 **Multiplayer Dots and boxes**, *Socket programming*, C.

2020 **DNA Analysis App**, *Using Ukkonen algorithm for Suffix Tree*, Python.

2019 **Multiplayer Snake**, C++.

2018 **Photo Editing Site**, Python,Django.