

# BEHARD SADEGHI

Computer Engineering Undergraduate Student

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## EDUCATION

### University of Guilan

Sep 2019 – Feb 2024

*B.Sc. in Computer Engineering*

*Rasht, Iran*

- CGPA: 3.46/4.0 (16.29/20)
- GPA of last year: 4.0/4.0 (18.88/20)

### Privileged high schools of Dr. Hesabi and Avicenna

Sep 2015 – Jun 2019

*Privileged high schools hold a 'model' license for outstanding educational quality.*

*Tehran, Iran*

- Diploma - Mathematics and Physics GPA: 3.9/4.0

## RESEARCH EXPERIENCE

### Nasal Bone Fracture Diagnosis Using Deep Learning

In Progress (Feb 2024 - Present)

Supervisor: Dr. Seyed Abolghasem Mirroshandel

- In this research project, we want to reach a high accuracy in detecting Nasal Bone Fracture detection via deep learning.

## RESEARCH INTEREST

- |                    |                               |                                     |                          |
|--------------------|-------------------------------|-------------------------------------|--------------------------|
| • Machine Learning | • Image Processing            | • Data science                      | • Reinforcement Learning |
| • Bioinformatics   | • Natural language processing | • Machine learning in Cybersecurity | • Deep Learning          |

## SELECTED PROJECTS

### Amazon Reviews | [\[repo\]](#)

TensorFlow(Keras)/Scikit-Learn

- A machine learning model was developed and trained on Amazon Reviews to analyze user sentiment. The dataset was extensively preprocessed, involving techniques such as tokenization, stopword removal, lemmatization, stemming, tag and emoji removal, and normalization.
- The sentiment analysis task on Amazon reviews was conducted using Logistic Regression. The repository provides resources and code for a variety of sentiment classification models, including Embedding Models, BERT, and Simple Neural Networks.

### Predicting Loan Acceptance: Identifying Potential Loan Takers | [\[repo\]](#)

Scikit-Learn

- In this project, I had access to a bank dataset to predict which individuals the bank should target with personal loan offers based on historical data.
- Conducting data preprocessing and exploratory data analysis, including geographic data handling and visualization.
- Employing machine learning models like Logistic Regression, Naive Bayes, and K-Nearest Neighbors, and assessing loan acceptance probabilities.

### Smartphone Price Range Prediction : Machine Learning for Informed Pricing | [\[repo\]](#)

Scikit-Learn

- Predicting smartphone price ranges based on their specifications using machine learning techniques.
- Utilized Scikit-Learn for implementing Decision Tree and Random Forest classifiers in the predictive modeling on a dataset, achieving accurate results.

### Segmentation Analysis of Active Credit Card Users | [\[repo\]](#)

Scikit-Learn

- This project involves clustering and segmenting approximately 9000 active credit card users based on their behavior over 6 months, utilizing 18 behavioral variables for analysis.
- Preprocessing and reducing customer data to 2D using PCA, and applying K-Means clustering to segment customers into four clusters, analyzing their behaviors and identifying cluster-specific characteristics

### Predictive Modeling of Car Prices | [\[repo\]](#)

Scikit-Learn

- Cleaning and preprocessing the dataset, converting categorical variables to numerical, building a linear regression model to predict car prices, and evaluating its performance using metrics and cross-validation.

### Course Registration System | [\[repo\]](#)

Java

- I created an Integrated University Course Registration System as part of my Advanced Programming course project at the university. I utilized object-oriented principles and also crafted a UML diagram for this system.

## WORK EXPERIENCE (unpaid)

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### Infinite Modern Technology

Feb 2023 – August 2023

#### Machine Learning Engineer Intern

- I have learned data processing techniques and tools such as Pandas, Matplotlib, Seaborn, and NumPy in this institute. Additionally, I have gained knowledge in machine learning concepts and working with algorithms. Furthermore, I have undertaken several data science projects as part of this learning journey:
- Analysis of Weather Data in England Between 2006 and 2016 | [\[repo\]](#)
- Cognizant Analysis and Noise Reduction of U.S. Financial Market Data | [\[repo\]](#)

## HONORS AND AWARDS

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### National undergraduate full scholarships, University of Guilan

2019 – 2023

*Top 1% of 164,000 participants in the Iranian University Entrance Exam*

### Announced as the Outstanding Student, University of Guilan

2019 – 2024

*Achieving a 4.0 GPA in 4 out of 9 semesters.*

### Member of the Scientific Association of Computer Engineering in University of Guilan

2023 – 2024

*This Association consists of 6 members selected from all the students of the Computer Department*

## RELEVANT COURSEWORKS

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- Intro to Machine Learning-Kaggle
- Pandas-Kaggle
- Natural language processing: 20/20
- Engineering Probability and statics: 19.75/20
- Advance Programming: 20/20
- Algorithm Design: 19.12/20

## TEACHING ASSISTANT EXPERIENCE

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### Artificial Intelligence | University of Guilan

Fall 2022

- \* Instructor: Dr. Y. Boreshban
- \* As a Teaching Assistant, I was responsible for creating assignments, guiding students through projects, and producing informative videos about neural networks, all to foster optimal learning experiences and facilitate students' comprehension.

### Algorithm Design | University of Guilan

Spring 2023

- \* Instructor: Dr. A. Khozaei
- \* I designed and assessed assignments for students so they were able to implement complex algorithms.

### Software Testing | University of Guilan

Spring 2023

- \* Instructor: Dr. F. Feyzi
- \* My only responsibility was to assess the students' assignments.

## SKILLS

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**Programming Languages:** Python, SQL, Java, C++,VHDL,HTML

**AI Frameworks:** Open CV, PyTorch, TensorFlow, Keras, Scikit-learn

**Data Science Tools:** Power BI, Numpy, Pandas, Matplotlib, Seaborn, Scipy, Excel

**Extra Tools and Technologies:** Git, GitHub, Latex, Proteus, CodeVisionAVR, Xilinx, ISE, FPGA, GNS3, Wireshark

**Operating Systems and IDEs:** Visual Studio Code, IntelliJ IDEA, Pycharm, Jupyter Notebook, MacOS, Windows, Linux

## LANGUAGES

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**English:** Overall band score **7.0** in the IELTS test : Reading(8.5), Listening (7.5), Speaking(6.5), Writing (6)

**Persian:** Native Language

## REFERENCES

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**Dr. Seyed Abolghasem Mirroshandel**

**Rasht,Iran**

- \* Associate Professor of Computer Engineering at University of Guilan
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- \* Google scholar

**Dr. Farid Feyzi**

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