HOSNA HABIBI BAGHI

Phone Number: +98 910 251 7715

hb.hosna077@gmail.com · LinkedIn · GitHub . hosnawhb.github.io

Education

- **B.Sc., Computer Engineering, GPA: 18.40/20 (3.89/4)**   Sep 2019 – Aug 2023
  University of Guilan

Honors & Awards

- Tuition Waiver, B.Sc., University of Guilan
- National Organization for Development of Exceptional Talents (NODET)
- Rank 6th among B.Sc. Computer engineering students

Research Interests

Machine Learning, Deep Learning, Natural Language Processing, Computer Vision, Data Mining

Research Experiences

- **Blood Glucose Prediction Using Mixture of Experts**
  Hosna Habibi, Pooya Kavosh, Seyed Abolghasem Mirroshandel. (In Progress)

Teaching Assistant Experiences

- **Digital System Design** *(University of Guilan – Fall 2022)*
  Instructor: Dr. M. Aminian
  Grading assignments and projects, preparing assignments and Projects, being in touch with students in order to answer their questions

- **Algorithm Design** *(University of Guilan – Fall 2021)*
  Instructor: Dr. A. Khozaei
  Grading assignments and papers, providing feedback on assignments, preparing assignments and Projects, Conducting weekly classes for student

- **Computer Architecture** *(University of Guilan – Fall 2021)*
  Instructor: Dr. H. Ahmadifar
  Grading assignments and project

- **Discrete Mathematics** *(University of Guilan – Spring 2021)*
  Instructor: Dr. S. M. Shekarian
  Grading assignments and projects, preparing assignments and Projects, being in touch with students in order to answer their questions

- **Advanced Programming** *(University of Guilan – Spring 2021)*
  Instructor: Dr. S. A. Miiroshandel
  Grading assignments and projects, preparing assignments and Projects, being in touch with students in order to answer their questions

Selected Accomplished Projects (Extra Projects on GitHub)

- **Sentiment Analysis on Amazon Reviews** [GitHub Repository]
  - The classification task was performed using **Naive Bayes** algorithm.
  - To enhance the performance of the neural network, transfer learning was utilized, leveraging the pre-trained language model **BERT**.
  - **Embedded layers** were incorporated to capture meaningful representations of the text.

- **Multi Label Text Classification** [GitHub Repository]
  - The purpose of this project was to deal with Data Labeling, Multi-label Recurrent Neural Classification, Text Processing and Classification Networks using **Keras**.
  - Libraries such as **Hazm**, **Pandas**, **NumPy**, **Scikit-Learn**, **Matplotlib, Seaborn** were used.
  - **GRU**, **LSTM** and **RNN** were employed.

- **Weather Prediction Image Classification** [GitHub Repository]
  - In this project **Fully Connected**, **ResNet**, **Inception Network** and **CNN** models were implemented and tested.
  - Libraries such as **NumPy**, **Scikit-Learn**, **Matplotlib, Seaborn** were used.

- **Image Segmentation on Camvid**   [GitHub Repository]
  - **SegNet** model has been used on the Cambridge-driving Labeled Video Dataset.
  - Libraries such as **NumPy**, **Scikit-Learn**, **Matplotlib, Seaborn** were used.

Skills

- **Programming Languages:** Python, Java, C++, VHDL
- **Data Visualization:** Matplotlib, NumPy, Seaborn
- **Web Development:** HTML, CSS, Bootsrap
- **Machine Learning Frameworks:** Tensorflow, PyTorch
- **Natural Language Processing:** NLTK, spaCy, Word2Vec, Hazm, Parsivar, Bert, RNN, LSTM, GRU,
- **Computer Vision:** Image Segmentation, Object Detection, CNN, Data Augmentation
- **Non-Technical Expertise:** Problem Solving, Teaching, Public-Speaking, Presentation

Certificates

- **IELTS (Overall 7.5)** - Speaking: 7, Listening: 8, Reading: 8, Writing: 6.5 – Jun 2023
- **Deep Learning Specialization** - Coursera, Instructor: Andrew Ng - Aug 2023 - [Certificate]
- **Natural Language Processing with Probabilistic Models** – Coursera, Instructor: Younes Bensouda Mourri – Sep 2022 - [Certificate]
- **Introduction to Data Science in Python Course** - Coursera, University of Michigan, Instructor: Christopher Brooks - Jul 2022 - [Certificate]
- **Introduction to Web Development –** Coursera, University of California – Sep 2021 [Certificate]
- **Machine Learning Course** - Coursera, Instructor: Andrew Ng - Aug 2021 - [Certificate]
- **Teaching English as a Foreign Language (TEFL)** – KISH Institute of Science and Technology – Feb 2021

Notable Courses

- Special Topics 2 (Intelligent Systems) – GPA: 4/4
- Fundamentals of Speech and Natural Language Processing – GPA: 4/4
- Fundamentals of Data Mining – GPA: 4/4
- Principles of Database Design – GPA: 4/4
- Special Topics 1 (Deep Learning) – GPA: 3/4
- Artificial Intelligence and Expert Systems – GPA:4/4
- The Theory of Formal Languages and Automata – GPA: 4/4
- Probability and Statistics for Engineering – GPA: 4/4
- Algorithms Design – GPA: 4/4
- Research & Presentation Method – GPA: 4/4

Working Experiences

- **Teaching English**   Feb 2021 – Feb 2022
  KISH Institute of Science and Technology

Languages

- **Persian:** Native
- **English:** Fluent (IELTS 7.5)
- **Italian:** Beginner

References

Dr. Seyed Abolghasem Mirroshandel   University of Guilan
mirroshandel@guilan.ac.ir   Google Scholar
Associate Professor at the Department of Computer Engineering,
University of Guilan, Rasht, Iran

                                                     University of Guilan
                                                     Google Scholar
Dr. Mahdi Aminian
mahdi.aminian@guilan.ac.ir
Assistant Professor at the Department of Computer Engineering,
University of Guilan, Rasht, Iran

                                                     University of Guilan
                                                     Google Scholar
Dr. Aida Khozaee
a.khozaee@ut.ac.ir
Lecturer at the Department of Computer Engineering, University
of Guilan, Rasht, Iran