

# HOSNA HABIBI BAGHI

Phone Number: +98 910 251 7715

[hb.hosna077@gmail.com](mailto:hb.hosna077@gmail.com) · [LinkedIn](#) · [GitHub](#) · [hosnawhb.github.io](https://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 6<sup>th</sup> 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 Baghi, Pooya Kavosh, Seyed Abolghasem Mirroshandel. (In Progress)

## Working Experiences

- **AI Researcher** Sep 2023 – Present  
*FlowChat*
- **Teaching English** Feb 2021 – Feb 2022  
*KISH Institute of Science and Technology*

## Skills

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

## Selected Accomplished Projects (More 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** and **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** and **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** and **Seaborn** were used.

## 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

## 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. Miroshandel*  
*Grading assignments and projects, preparing assignments and Projects, being in touch with students in order to answer their questions*

## Languages

---

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

## References

---

**Dr. Seyed Abolghasem Mirroshandel**

[mirroshandel@guilan.ac.ir](mailto:mirroshandel@guilan.ac.ir)

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](mailto: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](mailto:a.khozaee@ut.ac.ir)

Lecturer at the Department of Computer Engineering, University  
of Guilan, Rasht, Iran

University of Guilan

[Google Scholar](#)