SEYED AMIR KASAEI

in amir-kasaei
✉ a.kasaei@me.com
○ amirkasaei
⊕ amirkasaei.github.io

EDUCATION

- **Bachelor of Science, Computer (Software) Engineering** (Sep 2019 – Aug 2023)
  University of Guilan
  GPA:3.98/4 (Grade: 19.58) - **Ranked 1st**

HONORS & AWARDS

- **Ranked 1st** among B.Sc. Computer Engineering Students (Certificate in Persian) Sep 2019 – Aug 2023
- **Tuition Waiver**, Bachelor of Science, University of Guilan Sep 2019 – Aug 2023

RESEARCH INTERESTS

Machine Learning, Deep Learning, Computer Vision, Mechine Learning Safety, Medical Image Analysis, Natural Language Processing

RESEARCH PAPERS

- **MAML on Human Sperm Abnormality Detection** (in progress)
  Seyed Amir Kasaei, Amir Mohammad Ezzati, Amin Mokaddar Daemdoost, Seyed Abolghasem Mirroshandel.

EXPERIENCES

- **Reasearch Assistant**
  Univeristy of Guilan
  Sep 2022 - Aug 2023
  Supervisor: Dr. S A Mirroshandel
  Machine Learning

- **Teaching Assistant of Artificial Intelligence**
  Univeristy of Guilan
  Sep 2022 - Jan 2023
  Instructor: Dr. Yasaman Boreshban

- **Teaching Assistant of Digital Circuits**
  Univeristy of Guilan
  Sep 2022 - Jan 2023
  Instructor: Dr. Mahhdi Aminian

- **Teaching Assistant of Microelectronic Circuits**
  Univeristy of Guilan
  Feb 2023 - Jun 2023
  Instructor: Dr. Mahhdi Aminian

SELECTED ACCOMPLISHED PROJECTS - (Other Projects on Github)

- **CT-scan Image Segmentation using 3D-UNet** - Github repository
  - 3D-UNet model is implemented to segment liver in CT-scan images and compared to 2D-UNet
  - Scikit-learn, Torch, Numpy, Matplotlib, OpenCV

- **Breast Tumor Classification using GNN** - Github repository
  - GNN model is implemented to classify Breast Tumor on BRACS dataset
  - Histocartography, DGL, Torch Geometric, Torchvision, Scikit-learn, Torch, Numpy, Matplotlib, OpenCV, Pandas

- **Arabic Broken Plurals** - Github repository
  - We implemented a character based Machine Translation Model model to predict plural form of arabic words
  - BERT Embedding, Pandas, Scikit-learn, Keras, Tensorflow, Numpy
  - This project was done as a partnership with Dr. SA Mirroshandel for **Stony Brook University**

- **Image Segementation on CamVid using SegNet** - Github repository
  - SegNet model is implemented to segment images on CamVid dataset
  - Pandas, Scikit-learn, Keras, Tensorflow, Numpy, Matplotlib

- **Multi-Class Weather Classification** - Github repository
  - Simple CNN, Resnet And Inception Net are all implemented an d compared for image classification
  - Pandas, Scikit-learn, Keras, Tensorflow, Numpy, Matplotlib

- **An Odd Music Generator** - Github repository
  - We implemented a Denoising Auto Encoder model to denois the input song, a Deep Neural Network to Recognize notes in the input song and a Language model to predict the next note of the song.
  - Scikit-learn, Keras, Tensorflow, Numpy, Librosa, Matplotlib
- **Multi-Lable Text Classification** - Github repository
  - We implemented a multi task language model to predict class type of subjects and also the sentimental analysis of sentences.
  - Pandas, Scikit-learn, Keras, Tensorflow, Numpy, Hazm, NLTK, Matplotlib

NOTABLE COURSES

- **Fundamental of Data Mining** - 20 / 20
- **Special Topics 1 (Deep Learning)** - 19.8 / 20
- **Special Topics 2 (Introduction to Machine Learning)** - 18.16 / 20
- **Fundamentals of Language and Speech Processing** - 20 / 20
- **Artificial Intelligence and Expert Systems** - 20 / 20
- **Principles of Database Design** - 20 / 20
- **Data Structures** - 20 / 20

- **Software Testing** - 20 / 20
- **Algorithm Design** - 20 / 20
- **Principles of Compiler Design** - 20 / 20
- **The Theory of Languages and Automata** - 19.75 / 20
- **Engineering Statistics and Probability** - 20 / 20
- **Signal and Systems** - 19.5 / 20
- **Engineering Mathematics** - 19.75 / 20
- **Differential Equations** - 18.75 / 20
- **Discrete Mathematics** - 19.75 / 20

LICENSES & CERTIFICATIONS

- **Deep Learning Specialization**
  DeepLearning.AI
  Instructor: Andrew Ng
  Aug 2022
  Credential

- **Machine Learning Specialization**
  DeepLearning.AI
  Instructor: Andrew Ng
  Sep 2022
  Credential

- **Fundamentals of Reinforcement Learning**
  University of Alberta
  Instructor: Martha and Adam White
  Aug 2022
  Credential

- **Crash Course on Python**
  Google
  Aug 2022
  Credential

SKILLS

- **Programming Language :** Python, Java, C++, VHDL
- **Data Visualization :** Matplotlib, Panadas, Seaborn, OpenCV, Wandb
- **Machine Learning & Deep Learning :** Scikit-learn, Keras, Tensorflow, Pytorch, Learn2learn, Numpy
- **Computer Vision :** CNN, Image Segmentation, Image Classification, Image Processing
- **Natural language processing :** NLTK, hazm, BERT
- **Collaboration and Communication Tools :** Slack, GitHub, Skype, Discord
- **Web development :** HTML, CSS, Bootstrap, jQuery, PHP, MySQL

REFERENCES

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

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

Dr. Yasaman Boreshban   *University of Guilan*
yasaman.boreshban@sharif.edu   *Google Scholar*
Lecturer, Sharif University of Technology, University of Guilan