

SEYED AMIR KASAEI

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EDUCATION

- **Bachelor of Science, Computer Engineering** (Sep 2019 – Aug 2023)
University of Guilan
GPA:3.98/4 (19.58/20) - **Ranked 1st**

HONORS & AWARDS

- **Ranked 1st** among B.Sc. Computer Engineering Students Sep 2019 – Aug 2023
- Honored as **Exceptional Talented Student** ([Certificate in Persian](#)) Aug 2023
- **Tuition Waiver**, Bachelor of Science, University of Guilan Sep 2019 – Aug 2023

RESEARCH INTERESTS

Machine Learning, Deep Learning, Computer Vision, Image Processing, Medical Image Analysis, Image Classification, Image Segmentation, Machine Learning Safety

RESEARCH PAPERS

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

EXPERIENCES

- **Research Assistant**
Sep 2022 - Aug 2023
University of Guilan
Supervisor: Dr. S A Mirroshandel
Deep Learning
- **Teaching Assistant of Digital Circuits**
Sep 2022 - Jan 2023
University of Guilan
Instructor: Dr. Mahhdi Aminian
Designing and Grading Assignments and Projects,
Problem Solving Classes
- **Teaching Assistant of Artificial Intelligence and Expert Systems**
Sep 2022 - Jan 2023
University of Guilan
Instructor: Dr. Yasaman Boreshban
Designing and Grading Assignments and Projects,
Problem Solving Classes
- **Teaching Assistant of Microelectronic Circuits**
Feb 2023 - Jun 2023
University of Guilan
Instructor: Dr. Mahhdi Aminian
Designing and Grading Assignments and Projects,
Problem Solving Classes

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 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**
- **Multi-Class Weather Classification** - [Github repository](#)
 - Simple CNN, Resnet And Inception Net are all implemented and 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 denoise 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-Label 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** - [Credential](#)
DeepLearning.AI - Aug 2022
Instructor: Andrew Ng
- **Funds. of Reinforcement Learning** - [Credential](#)
University of Alberta - Aug 2022
Instructor: Martha and Adam White
- **Crash Course on Python** - [Credential](#)
Google - Aug 2022
- **Machine Learning Specialization** - [Credential](#)
DeepLearning.AI - Sep 2022
Instructor: Andrew Ng
- **IELTS** - [Certificate](#)
IDP - Sep 2023
Overall: 6.5
Listening: 7, Reading: 6.5, Writing: 6, Speaking: 6

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** : Image Classification, Image Segmentation, Image Processing
- **Natural Language Processing** : NLTK, Hazm, BERT, Language Models, Text Classification
- **Collaboration and Communication Tools** : Slack, GitHub, Skype, Discord
- **Web development** : HTML, CSS, Bootstrap, jQuery, PHP, MySQL

REFERENCES

Dr. Seyed Abolghasem Mirroshandel
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