Amir Abbasi

Education

- B.S. in Computer Engineering, GPA: 18.16/20   Sep 2017 - Jul 2021(Expected)

Personal info

Name: Amir Abbasi
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Research Interests

Primary areas:

- **Reinforcement Learning:** This is the area that I am very interested in and I work in it as the main area.

- **Adversarial learning:** I'm seeking to utilize this type of learning in other learning methods(especially in RL).Also I'm interested in using GANs to generate unrealisitc images.

Secondary areas:

- **Computer Vision**

- **Medical Imaging:** I worked on a medical imaging task and I think it's very interesting to use AI in heathcare.

Academic background

Machine Learning,Deep learning,Adversarial Learning,Reinforcement Learning
Transfer Learning,Multi-task Learning

Research Assistant Experiences

Sperm abnormality detection   Sep 2019 – Aug 2020
Under supervision of Dr. S. A. Mirroshandel
· I worked on a Computer Vision task to make some models to detect sperm abnormality detection and we utilized transfer and multitask learning.

Generative models is medical imaging   Nov 2020-Present
Under supervision of Dr. S. A. Mirroshandel
· I'm currently working on a medical imaging task to use GANs for generating medical images.

Research Papers

- Effect of deep transfer and multi-task learning on sperm abnormality detection
  A. Abbasi, E. Miahi, S. A. Mirroshandel
  Computers in Biology and Medicine, Jan. 2020. (published)
- GANs in generating medical images
  A. Abbasi,S. Bahrami,S. Hemmati,P. Mellatdoost,S. A. Mirroshandel (in prep.)

Course Assistant Experiences

Funcdematals of Reinforecment Learning   Oct 2020-Present
  Instructors:Adam White,Martha White   Coursera

  This course is the first course of Reinforcement Learning Specialization which is one of MOOC
  courses offered by University of Alberta and it's used in some of Reinforcement Learning courses
  as assignment in University of Alberta. (According to link)

  Duties:Answering students' questions and guiding them in assignments and quizzes(scientific
  questions,issues in code)

Teaching Assistant Experiences

- **Artificial Intelligence:**   Fall 2020
  · I designed some of assignments and final project of course.The project was about using A*
  algorithm in to play a game.
- **Computational Intelligence: Head TA**   Winter 2020
  · I designed list of final projects(with collaboration of the teacher) and also recorded some videos
  to teach Pytorch.
- **Data Structures: Head TA**   Fall 2020
  · We designed 3 programming assignment(each assignment has about 5 questions) and also a final
  project.Finally we evaluated projects.
- **Advanced Programming: Head TA**   Winter 2020
  · It was a very hard semester due to spreading of Corona virus and was the first time that I
  had to lead students online.We designed 6 projects,held discussion sessions online and evaluated
  projects.Fortunately it finished well like a normal semester.
- **Data Structures: Head TA**   Fall 2019
  · I designed several projects(2 of 5) and also held discussion sessions.Also I evaluated projects of
  students(with collaboration of other TAs).
- **Advanced Programming:**   Winter 2019
  · My duty was designing several projects(3 of 7) and also do some of programming examples(such as
  fundamentals of Java,OOP,Swing,Mutli-threading and Socket Programmig) to teach students.Also
  I evaluated projects of students(with collaboration of other TAs).

Leadership Experiences

Ideal Intelligence journal   Jan 2021-Present
Content producer   University of Kharazmi
· I'm a content producer in a magazine that profesionaly is about AI and our goal is to write scientific
articles about lots of AI fields.I mainly write about Reinforcement Learning and some of Computer Vision
subjects.

AI community   Jan 2021-Present
Leader   University of Kharazmi
· I constituted an AI community to absorb and guide other students to learn AI.The main activity of
this community is to hold some meetups every month.Note that the idea of constituting this community
derived from a community in University of Guilan which helped me to start learn AI.

Skills

C++,Java,Python,VHDL,Keras,Pytorch,LaTex

Self accomplished projects

- **learn Tic-Tac-Toe:A simple adversarial tabular Q-learning approach**
- **Iran Stock prediction**

- **Oocyte Segmentation** (link)
- **Don't overfit!;Kaggle** (link)

Certifications

- **Reinforcement Learning Specialization** (Certificate)   Sep 2020
  Coursera,Instructors:Adam & Martha White
- **Practical Reinforcement Learning** (Certificate)   Dec 2020
  Coursera
- **Build Basic Generative Adversarial Networks(GANs)** (Certificate)   Oct 2020
  Coursera
- **Deep Learning Specialization** (Certificate)   Dec 2018
  Coursera,Instructor:Andew Ng.
- **Machine Learning** (Certificate)   Dec 2018
  Coursera,Instructor:Andrew Ng.
- **Java Cup:Java programmer certificate** (Certificate)   Oct 2018
  Javacup Association

Presentations

Reinforcement Learning;A survey

Best courses of Reinforcement Learning

AI learning path

Introduction to Pytorch

DDOS attacks

Honors & Awards

Full Scholarship, B.sc, University of Guilan   July 2017
Ranked top %3 in the National University Exam in more than 148,000 participants.

Exceptional Talent   Jan 2021
Ranked within the top %15 among 71 graduates of Computer Engineering class

References

Dr. Seyed Abolghasem Mirroshandel   University of Guilan
· Head of Computer Engineering Department and Associate Professor   Homepage
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Dr. Seyed Mohammadhossein Shekarian   University of Guilan
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