

Amirpasha Ghabussi

Machine Learning
Researcher and Engineer,
University of Waterloo

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Education

Master's of Mathematics in Computer Science | University of Waterloo | December 2020 (Expected)
Research Focus: Deep Learning, Machine Learning, Computational Linguistics, Natural Language Processing, Generative Neural Networks, Style Transfer, Stylized Generation

B.Sc. in Software Engineering | Sharif University of Technology | Tehran, Iran | August 2018
Senior Thesis: Recurrent Attention Models for Visual Question Answering: A recurrent attention mechanism to improve the performance of the visual question answering models by attending several times on the image and question.

Skills

Languages : Python, C, Java, Julia, Matlab, SQL
Machine Learning: Tensorflow, Keras, PyTorch
WebDev : HTML, CSS, JS, NodeJS, ExpressJS
Blockchain : Solidity, Vyper
Other : AWS, Git, MS Office, Unity, ElasticSearch

Honors

National IOAA Olympiads Gold Medalist (among 200,000 participants)
International IOAA Olympiads Bronze Medalist

Languages

Fluent in Persian and English
Basic knowledge of French

Summary of Qualifications

- 2+ years of machine learning research and development experience within academia and industry.
- Excellent presentation and leadership skills as demonstrated by three leadership positions and 7+ years of teaching experience.
- Skilled and adaptable programmer as evidenced by development-heavy projects requiring multiple programming languages and frameworks.
- Strong teamwork and collaboration skills as demonstrated by successfully working in teams, developing machine learning models, and writing conference papers.

Relevant Work Experience

Since Sep'18 Research Assistant University of Waterloo

- Generated stylized text based on a specific style by developing a generative neural network using Tensorflow.
- Classified a dataset of spectrogram images based on their artists using a deep CNN structure.
- Studied the clustering behavior of the latent space in the autoencoders and generative models.
- Studied and analyzed the effects of using different latent space distributions for training generative neural networks.
- One published research paper: Vechtomova, Olga, et al. "Generating lyrics with variational autoencoder and multi-modal artist embeddings." arXiv preprint arXiv:1812.08318 (2018).
- Research outcome covered by many popular news channels.

Since Sep'18 Teaching Assistant University of Waterloo

- Taught tutorials and TA sessions using a systematic plan of lectures, discussions, and audio-visual presentations for a C programming course with more than 900 students, covering all aspects of the C programming language.
- Reviewed students' code to mark the assignments by evaluating their algorithm and the efficiency of their code and enforcing standard style rules.

Sep'15-Jul'18 Teaching Assistant Sharif University of Technology

- Conducted and Taught tutorials, prepared and graded assignments and exams for several courses such as Operating Systems, Information Retrieval, Advanced Java Programming, Computer Networks, Software Engineering, and Network Security.
- Designed and developed assignments and project code baselines in several programming languages.
- Assisted students to design real-world solutions and quickly implement prototypes.

Leadership and Management Positions

Sep'14-Aug'17 Event Manager Sharif University of Technology

- Planned, Organized, and managed recreational events for up to 150 students ranging between 1 to 4 days, carefully planning the details of the events, and coordinating them.
- Coordinated and led the group of executive staff during the events by conducting individual and group meetings and developing critical thinking and problem-solving skills.

Sep'15-Aug'16 Educational Manager Allameh Helli 8 High School

- Developed lecture plans for extracurricular Olympiads classes, resulting in the school's first gold medal in the national contest.
- Helped students learn problem-solving and critical-thinking skills.

Dec'15 ACM Executive staff Iran's ACM programming competition

- Led a team of 20 staff to guide 80 participating teams and prepare the contest location, helped them with their tasks, and resolved conflicts.