

# Statement of Purpose

AmirAli Kaboli, **DEGREE** Applicant

## Background

My primary interests originate from my childhood, and I was known as a kid that could work with a computer. The beginning of my path towards where I stand now was in high school by preparing for the national Olympiad in Informatics. It allowed me to learn how to think and be creative in dealing with challenging problems, which showed me I really enjoy problem-solving. Also, it was then that I started programming for the first time. After the university entrance exam that I have studied for eight hours daily, I was accepted to the Computer Science undergraduate program at Amirkabir University of Technology(AUT), the second-best university in Iran.

During my undergraduate study, I was granted admission from the talented student office because of getting high grades in the first four semesters. Participating in ACM contests that I was familiar with these academic competitions due to the Olympiad, we always were one of the best teams at AUT. It was possible since there was significant teamwork among the members to improve the performance of each other for getting the notable results. As the leader of the team, I was also able to enhance my leadership ability.

In the summer of my second year of study, I got an internship and then a job offer as a Machine Learning Engineer in the NLP team of Sotoon. Besides that, I took some major courses such as Data Mining and Information Retrieval. Moreover, I enrolled in two graduate courses that I was allowed to take due to my high GPA, such as Natural Language Processing and Data Science, and watching online courses such as CS224N of Chris Manning at Stanford University. All that was mentioned helped me improve my skills and gain knowledge to start my career as a Data Scientist in Cafe Bazaar. During my work experience, I learned how to work efficiently as a team member and be responsible and on-time.

Under the supervision of professor Akbari, I have started my research experience for my thesis, Intent Detection in Conversational Recommender Systems(CRS). I have chosen it because CRS is almost an untouched area and a good research option. Like any research project, the beginning step was the literature review, which made me comfortable with reading academic papers. Then, I examined a number of existing methods on my dataset and made a benchmark. After that, I built my new method that achieved some improvements in comparison with previous methods. Finally, I have been preparing a comparative study paper on Intent Detection according to my experience in the area that caused spending time on my knowledge about writing and publishing papers.

To improve my teaching experience and skills, I had three Teacher Assistant positions during my bachelor's study because I got a high or even full mark, and to the professors, I was a knowledgeable, outstanding student. I held exercise-solving classes for students, and defined,

corrected, and graded assignments. In addition, I was a member of our faculty's Student Scientific Chapter, where we held some Data Science seminars and workshops. As you realized, my undergraduate study contains lots of activities that I could handle all of them well by being hard-working and disciplined during my really busy semesters.

## **Future Directions**

"Artificial Intelligence is the new electricity." (Andrew Ng), and its applications are noticed in various aspects of our daily life. According to its contributions to different industries, it will be more widespread in the future, and some companies make their opportunities on using AI. In my mind, AI is like magic or divination since only a tiny portion of people know its mysteries, and others are made just excited. Especially, I am fascinated with NLP approaches because it is the way humans communicate, and it is interesting that a machine can communicate like a human that contains both understanding and then answering. The more machine mechanism is like human perception, the more fascinating it is for me, such as the intersection of NLP and other branches like Vision.

I imagine myself in the future as a researcher who cooperates with industry. It will allow me to be influential in humans' life by dealing with real-world projects that are based on one of the purposes of resolving people's needs or improving the quality of a product that they use. I will also be able to extend the boundaries of science in fields that I am interested in by researching and building novel and innovative methods that efficiently solve a problem.

I wish to pursue my **DEGREE** program at **UNIVERSITY**, which I believe is definitely the ideal place for me to achieve my goals. I really enjoy learning new things and overcoming challenges by using innovative ideas and working with motivated members towards a goal. The professors whose academic level is remarkable can contribute to reaching the situation besides increasing my knowledge and research experience. According to my background and experience in NLP, I believe I have the required qualifications to successfully accomplish my **DEGREE** study in your computer science department. **I would be enthusiastic about working with one of the professors of PROF, PROF, as potential advisors since their field of study and research interests fit my interests entirely.** I am confident that I could be a great asset to your university by being an ambitious researcher and helping students through teaching assistantships. I can also help in extracurricular activities due to my experience in holding events and seminars as a SSC member.

Thank you for your time,  
AmirAli Kaboli