

In the Name of God

Statement of Purpose

As a child the question that always stumped me was “how do telephones and televisions work?” My exposure to electronics began when I was 12 years old as I tried to come up with very simple circuits with basic elements such as LEDs, Diodes and Resistors in my leisure time with the help of my father. In that age I had the feeling that I could fabricate anything I wish with those electrical elements. I was so amazed by them that since then I chose my future field to be electrical engineering.

As a perfectionist I am so reluctant to accept anything short of perfect. This has led to my success in many different aspects of life as I have always been ranked the *** among ***. No matter how hard I should work, I always do everything in the most perfect way. I completed my high school education in *** where I was trained by the professional physics and mathematics professors who helped me discover my *** in the complicated areas of physics and mathematics. Back then I tried so much to enhance my knowledge and skills in my area of interests and make them more tangible in my life. Finally, after consulting many specialists, I decided to continue my undergraduate study in *** as it was closely related to mathematics and was the exact field I wished to pursue since my childhood. In “The Nationwide Entrance Exam of Universities” I was ranked *** among more than 400000 participants. Hence, I was able to enter electrical engineering in University of *** -the first and the best university in the fields of engineering in Iran.

At university, I’ve known myself as the happiest person in the world since I had the opportunity to be taught the most amazing topics by the most knowledgeable professors. I also enjoyed group studying for exams and group projects where we had to pull all-nighter ups in university building to work on different projects. As an acute and hardworking student, I was successfully ranked *** among *** students of electrical engineering department of *** in 20**-20**. Continuing this trend, in 20**-20** I was ranked ***, and in my ** year (20**-20**) I was again ranked ***. As a junior student, Because of my excellent grades and honors and a GPA of ***/20, I was awarded the admission for *** program in ***, from *** and ***, top two ***, without having to participate in the nationwide *** exam which is held annually among about *** electrical engineering students and only the top *** students could be accepted in *** and ***.

During my undergraduate studies I had the chance to learn programming languages such as C, C++, assembly 80x86, and Verilog. Moreover during the course projects, I became adept at working with scientific and technical programs such as MATLAB, Quartus, Modelsim, Codevision, Altium Design, ORCAD, HFSS, PROTEL and other relevant programs. Over the past two years, I have developed my interest in the area of communications by conducting several researches and projects in this major as in one of the courses, in a group of three, we implemented a coding system which was able to convert the data from analog to digital and then encrypt the discrete data. We also designed a detector for this system. Another group project I am pretty proud of was for the *** course where we designed a system with MATLAB which could reconstruct any corrupted voice file and eliminate different kinds of noises by windowing the signal and utilizing MFCC, LSF, and MCEP vectors.

Furthermore; I have done many other projects on various topics such as Quantization Noise and its effect on signal transmission, Sampling, FIR and IIR filters implementation, and Two-Factor Prime factor algorithm FFT. As well as allowing me to have depth and breadth across my field of study, these projects helped me understand the basic functions of communications system and the methods which are critical for the complete analysis of a system.

I spent my internship in a communications and network company named ***. It was a completely different experience as I gained the experience of working with the people in my field as my colleagues. One of my responsibilities was to find the best place for ***. Also during my internship, I participated in a workshop about *** in ***. Impressed by my great performance, they asked me to continue my cooperation.

Having a great motivation to study, my goal is to continue my education after graduation and finally achieve a PhD degree in Communication Engineering in the fields of ***, ***, *** which are rapidly evolving fields with an immense potential for research. After achieving my PhD, I wish to pursue a career in research and experience the excitement and satisfaction of being at the forefront of this vast expanding field.

As I mentioned earlier, I am a perfectionist and I find the academic milieu and the extremely distinguished faculty, accrued with a graduate program that blends high quality course work and research facilities at the cutting edge of science, the perfect factors which *** instills. This has motivated me to choose *** as my first and only choice for my graduate studies. I believe that the *** PHD program will help me acquire the versatility needed to reach my full potential as an engineer.

It would be a great privilege to be able to continue my journey to graduate studies with adequate financial assistance and I am confident, being given the chance of continuing my graduate studies I will be a prominent and prosperous student at *** which I believe is the ***.