

## Statement of Purpose

I believe that success results from hardworking and following one's dreams, and I have pursued this path in various aspects of my life. As an ambitious person, I always tried hard to do my best. During high school, according to my interest in logic, calculation, and rules, I studied Mathematics and physics and became the best student in high school. At this level, I visited people with various jobs to choose my field of study at the University. Accordingly, I met a material engineer who explained the importance of this field and its impact on material properties, ultimately drawing my attention to this domain. Therefore, I prepared for the national university entrance exam to join academia. The result of my diligence was being belonged to top four percent participators and being admitted to the Islamic Azad University Science and Research Branch, in the material science and engineering field.

After that, my journey in material science has been started. Participating in various courses made me realize this domain's central concept during my undergraduate program, and those classes broadened my horizons. I passed a thorny path at the beginning and had to support myself financially, so at the same time, I started teaching mathematics and physics in high school, and I could not put all my potential into my study. Although moving to a mega city was challenging and faced many problems, I quickly coped with the new environment and focused on my research. I became enthusiastic about learning more by passing lectures and gaining more information about this domain. My final project was "The homogenization of AZ91 alloy joined in semisolid state with the help of Mg-Zn alloy as an Interlayer." I have been working on this subject again recently, and one paper is under preparation for its outcomes.

Afterward, I understood that I was eager to learn more, so by effort similarly was accepted into the Sharif University of Technology. I continued the Metals Forming area as my major in M.Sc. During my master's program, I passed various courses about metals heat treatments and deformation processes, including Hot Deformation, Workability, and Theory of Plasticity, as my favorite subjects. As an active student, I participated in class discussions and prepared high-quality assignments, leading professors to pay attention to my abilities. Notwithstanding many studies on microstructural evolutions in metals, a more meticulous approach to modification of materials substructure is needed in science and industrial progress. I chose "The effect of rapid (electrical) annealing on microstructure and mechanical properties of severely deformed copper" as my thesis title. My endeavor result was becoming a second rank student in terms of GPA, which was 35 out of 4.

Accordingly, my excellent performance at University immediately became a Research Assistant at the Sharif University of Technology for two years. Also, I cooperated with Professor .... and we published a paper from my master's thesis. My research interest led me to publish two papers, and now I have two others under preparation. I believe research helps me to develop my abilities by reading emerging articles, learning new methods, and bringing new ideas to my mind. So, having my research group is my long-term goal after finishing my Ph.D. degree in Ohio State University.

Since two years ago, I have been working as an R& D expert and learning about steel manufacture by gaining valuable experience. All those experiences, as mentioned earlier, led me to discover time management under workload, teamwork, flexibility, responsibility, and effective communication. Based on my interest in continuing my study in a Ph.D. program in an international environment, after several months of study, I took part in TOEFL and spent some courses to delve deeper into my field of study.

According to the experiences that I have had during my studies and related work and the ideas that are in my mind, I have a strong interest in doing research. After completing my Ph.D. program, which will undoubtedly increase my knowledge in the field of .... and emerging laboratory techniques, I can enter an academic environment as a researcher. The Ohio State university, with outstanding professors and equipped laboratories, has an excellent global ranking. Also, Professor's .... research domain is very impressive, especially his/her article titled "----." I hope to do my Ph.D. in the field of----- under her supervision. The possibility of conducting research at the Ohio State university is desirable to me, and I am eager to publish my research results in prestigious journals by implementing new ideas that I have under the supervision of Professor-----. So all of the reasons mentioned above make me apply to this program because it will lead me to run my research group as my long-term goal, publish my research results in international journals, and communicate with outstanding professors to collaborate with their research group.