

August 30, 2023

Graduate Admission Committee  
Halıcıoğlu Data Science Institute

Many software developers coin the term “Perpetual Beta” to a software product that’s improved upon but never published as an official release. In the philosophy of Stoicism, there is an endless cycle of improvement and the embracing of discomfort because it articulates that hardship makes us stronger. These two views of different fields of knowledge have been the main drivers of my work ethic, given the fact that they embrace whatever the game of life decides against us or in favor of us. As long as I remember, my drive for learning as a whole began with reading a collection of children’s themed encyclopedias with the characters of Peanuts, and from there, a search for further knowledge by pursuing a college degree.

During my undergraduate lectures, I initially found them underwhelming. However, the COVID-19 pandemic offered a unique opportunity for reflection within the context of history. This period spurred a personal transformation, fueling a stronger drive for self-improvement. Amid the turbulence, I embraced physical fitness and enhanced my analytical skills by studying academic papers. Eventually, these personal interests molded me into a proud and ambitious individual, eager for continuous growth. In the seventh semester of my undergrad, we got the opportunity to write a proper academic research paper, which made me consider the realms of research as an entire professional career when it felt that I was experiencing an analysis paralysis about my future outside of undergrad.

Fast forward to Summer 2023, I got the opportunity to be one of the many promising students of the prestigious ENLACE 2023 Summer Research Program, and a glimpse into the realms of academic research that solidified my resolute to pursue higher education to fulfill my dreams and goals of moving knowledge forward, making me feel like a child with every new interaction that we had with our mentors and colleagues about their respective academic domains. The project that was developed in the camp relates drastically to the type of labor that is Data Science; we were tasked to train a DNN with Pytorch and get the performance plots and statistics to determine if the model could compete against a GNN that was trained for particle tracking at the Large Hadron Collider,

and we found that the simplicity of a DNN could be as accurate as the GNN, which was a surprising result to everyone involved. I never thought that a single project done in one summer could affect my worldview so drastically that it convinced me to pursue a graduate degree in Data Science. Given this, to become a student of the Halıcıoğlu Data Science Institute and its graduate program on Data Science would be an honor.

For many, the world-renowned rigor of American Academia can be daunting, but for me, it is necessary to mold better individuals capable of proper academic research and reasoning in every other aspect of life. This is why pursuing a Ph.D. in Data Science would assist my career. With this, I am truly committed to this academic journey, the University of California San Diego, and the Halıcıoğlu Data Science Institute, and the community itself.

Although I've yet to have the pleasure and honor to meet the faculty members, the research focus of Berk Ustun, David Banks, Mikhail Belkin & Vineet Bafna is of utmost interest given the fact that they are working with the theoretical aspects of Data Science, the applications of Data Science to support science and medicine. With the former, if my acceptance is considered, I would be very pleased if I could work on high-dimensional data with Machine Learning models and research related to the applications of Data Science for the understanding, and even the treatment of various skin conditions. I am convinced that a solid theoretical background can lay down more successful applicated projects, and because I too have dealt with several skin conditions such as Cystical Hormonal Acne, these reasons are enough drive to dedicate myself to the realms of academia and have a chance to write research that can help others to comprehend the complex and marvelous theory of Machine Learning models and to treat such skin conditions, and all of this in the reputable institution of the UCSD and the Halıcıoğlu Data Science Institute.