

I am graduating senior here at UCR with a B.S. degree in Computer Engineering and I plan to continue my education at UCR through the B.S.+M.S. program. My time at UCR under BCOE has been phenomenal as I have not only gained knowledge in an area of study that greatly interests me, but it has also helped me grow as a person, meeting so many new people who also aspire to do unbelievable things in their lives. Currently, I want to branch out into more practical areas with developing projects and I believe this summer opportunity with the data science fellowship will be an amazing experience where I plan to give my all to help this project succeed, and help UCR.

Coming into university as a computer engineering major, I was going into an unfamiliar field, as I come from a family of teachers, so my background knowledge in this career was lacking. However, through my years here at BCOE, I feel as though I have learned a great deal, not only about the content within my major, but of engineering as a whole and the community around it. Especially in the last few years as I began to look beyond classes for other opportunities with my peers in engineering related opportunities, I began tutoring for computer science classes as it not only helped me reinforce my own course knowledge, but introduced me to a much wider range of peers in BCOE that I wouldn't have otherwise. I want to continue this into my graduate year and I feel like this summer opportunity would be another great chance to not only grow my skillset, but my sense of community within engineering.

My coursework relevant to machine learning and AI involves CS170, Introduction to AI, and CS171, Introduction to Machine Learning and Data Mining. CS170 sparked my interest in how I can apply the different efficient algorithms I have learned in previous classes to practical applications and models to solve problems in ways I haven't seen before. Through this class, I produced a couple projects implementing AI techniques such as Minimax solving basic games

such as Tic-Tac-Toe. At the beginning of my senior year, I took CS171, where I learned the structures and mathematics of several different machine learning models. This class was of great interest to me as the continuous assignments helped build the foundation of my understanding of probabilistic models, linear and nonlinear regression models, and neural networks. This interest accumulated towards my senior design project. Even though it was an embedded systems based project, my team and I wanted to integrate machine learning to take the capabilities of our project further. Our project was a pair of smart glasses that could take in audio input and live generate captions that the user would be able to read on a transparent screen in front of the lens using speech recognition. In addition to this feature, the glasses also had a small camera that could take pictures and detect letters in American Sign Language. With our limited time, we were able to develop a neural network model that integrated with the system to take a picture, detect which singular letter was shown, and output that letter to the screen. These various projects helped me develop a foundation within AI and machine learning in particular and I am excited to see what new projects I can help create with these past experiences as I develop my skills.