



meet

DR. DEIDRA WARD



- From an early age, Deidra M. Ward showed academic progress. Throughout elementary and middle school, she was placed in advanced courses through the Charleston County School District's Gifted and Talented Program. This investment in her education prepared her for the entrance exam to attend the nationally recognized Academic Magnet High School (AMHS).
- In spite of being one of the few Black students in the entire student body (less than 3% of the student population), Deidra was able to excel both academically and in her extracurriculars at AMHS. During her time at AMHS, she was a member of the Dance Team (2011–2013), the Step Team (2012–2015; 2014–2015 Captain), and the AMHS Dirty Birds (2012–2015; 2014–2015 Captain). Additionally, she was in Speech and Debate (2011–2012), and she was a member of the competitive math team, Mu Alpha Theta (2011–2015). Even with her heavy involvement in extracurricular activities, she was able to excel academically, taking exclusively honors classes and Advanced Placement courses for college credit. Further, it was during her time at AMHS that Deidra began her foray into research. During her junior year at AMHS, she was chosen to conduct research in the Clemson–MUSC Bioengineering Laboratories under Dr. Hai Yao. This opportunity resulted in a senior thesis entitled "Development and Validation of an Oxygen-Dependent Model of Corneal Collagen Cross-linking". Her work was recognized locally and regionally. She was Second Place Overall at the Lowcountry Regional Science and Engineering Fair, a Semi-Finalist at the Junior Science and Humanities Symposium, and the First Place Written Presentation in Engineering at the South Carolina Junior Academy of Science Annual Meeting. By the time she graduated high school in 2015, Deidra had received several scholarships, including the Palmetto Fellows Scholarship and a full-ride to Clemson University. Additionally, the college credits she earned during her studies allowed her to be registered as a Junior at Clemson University.



- At Clemson University, Deidra continued to excel. In less than a year, Deidra was nominated for and received the Outstanding Student in Organic Chemistry Award. During her time at Clemson, she continued to do research, starting in Spring 2016, working under Dr. Modi Wetzler on the synthesis and characterization of polymers structurally similar to kevlar and under Dr. Mark Roberts on the development of a battery using renewable materials. In 2017, she received the NSF-IRES scholarship and the Gilman International Scholarship to conduct research at Nanyang Technological.
- In her final year of undergraduate studies, Deidra was accepted into the University of Texas at Austin to pursue a PhD in Chemical Engineering. She also received the GEM fellowship and the Richard W. Moncrief Endowed Graduate Fellowship in Engineering to fund her doctoral studies. While at the University of Texas, Deidra conducted her dissertation research under the supervision of Dr. Nicholas Peppas. During her doctoral studies, she has published three peer-reviewed articles and presented her research at five national conferences in such cities as Honolulu, Orlando, Houston, Lisbon Portugal, and Washington, DC. In 2022, Deidra was honored by the chemical engineering department to be "TA of the Year" for her exemplary work in teaching, tutoring, and mentoring the Kinetics and Reactor Design course during the 2021-2022 academic year. In April 2023, Deidra defended her Ph.D. thesis, "Polycationic Nanoparticles for miRNA Delivery in Neuroblastoma". On May 6, 2023, Dr. Deidra M Ward graduated from the University of Texas at Austin with her Ph.D. in Chemical Engineering.
- Deidra often says that she is a reflection of the village around her. She is grateful for the love and guidance of her family, friends, and community, who have supported her throughout her journey as a first-generation doctoral candidate. While she has relocated to Houston, Texas, to begin her career as a consultant, she will always remember her roots, right here, in North Charleston, South Carolina.