

**EDUCATION****Texas Academy of Mathematics and Science, Denton, TX Aug. 2019 - May 2021**

- 4.0 Unweighted/Weighted GPA
- Relevant Coursework: Computer Science I, Computer Science II, Honors Chemistry, Calculus I, Calculus II, Introduction to Microeconomics, English I, English II
- Activities/Awards: Materials Science Researcher under Dr. Brostow, Molecular Biology Researcher under Dr. Root, Tom Weiner Scholarship Recipient, President's List, Junior Engineering Technical Society President, DECA ICDC Qualifier, TAMS Summer Research Scholarship Recipient, Science Olympiad Medalist, Habitat for Humanity Committee Head, Hackathon Competitor, Volunteering Coordinator for The Supply at UNT

**Seven Lakes High School, Katy, TX Aug. 2017-April 2019**

- 4.0 Unweighted GPA, 4.71 Weighted GPA
- Relevant Coursework: AP Computer Science, AP Statistics, AP World History, Spanish III, Precalculus, Pre-AP Biology, Pre-AP Chemistry
- Activities/Awards: Freshman Basketball, Freshman Football, Principal Cellist in School Ensemble, TMEA Full Orchestra State Champions, Highest Rank at UIL Cello Competitions, Spanish National Honor Society Member

**ACTIVITIES****Junior Engineering Technical Society, President, Spring 2020 - Present**

- Oversee Science Olympiad competition directors, robotics directors, and community service directors in a goal to cultivate a passion for science, engineering, and technology among TAMS and younger communities
- Designed a website promotes Science Olympiad, Science Bowl, Robotics, and volunteering within JETS
- Supervise roughly \$3000 in liquid funds, work with TAMS administration to organize purchase requests

**Science Olympiad, Member, Fall 2019 - Present**

- Competed in multiple competitions at Cypress Falls, Louisiana Tech, UT Austin in study/build events such as Protein Modelling, Forensics, Boomilever, Ping-Pong Parachute, and Wright Stuff
- Won gold medal in Protein Modelling, silver medal in Forensics, silver medal in Boomilever, bronze medal in Ping-Pong Parachute at LA Tech Invitational; placed 2<sup>nd</sup> at Regionals and qualified for the Texas State Competition

**EXPERIENCE****Tarry Research Lab Northwestern University, Research Assistant under Dr. Green, Summer 2019**

- Worked extensively with qPCR (Quantitative Polymerase Chain Reaction) in efforts to analyze over 30 gene expressions of mice that had a specific Unfolded Protein Response pathway knocked out and control mice under a normal or fatty diet; discovered that a high-fat diet raises levels of regulator genes
- Contributed to paper directly with principal investigator; article is pending publication in Fall 2020

**Materials Science Research at UNT, Research Assistant under Dr. Brostow, Fall 2019 - Present**

- Wrote 3 pending research articles in correspondence with principal investigator; derived novel quadratic relationship between the elongation at break and Vickers Hardness values of over 10 polymers
- Utilized MATLAB, Microsoft Excel, and Mathematica to derive relationships between polymers

**Molecular Biology Research at UNT, Research Assistant under Dr. Root, Spring 2020 - Present**

- Designed peptide that aims to disrupt the effectiveness of the COVID-19 virus, edited numerous amino acids in the coiled-coil structure to create the most stable interaction energy within the model
- Worked with Maestro, Tinker, and other software to create and edit the model of the peptide

**SKILLS:** qPCR Analysis, Microsoft Office, C++, Java, JavaScript, HTML, R, Windows, Mac OS

**LANGUAGES:** Native English, Spanish, Mandarin Chinese

**INTERESTS:** STEM, Computational Biology, Programming, Basketball, Football, Community Service