

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, English I, English II, Discrete Mathematics, Intro to Data Science, Multivariable Calculus, Physics: Mechanics
- Activities/Awards: Published Materials Science Researcher under Dr. Brostow, Biomolecular Researcher under Dr. Root, 2nd Place in Chemistry at TAMS Fair, 1st in Texas Economic Challenge and National Qualifier, Tom Weiner Scholarship Recipient, 2x UNT President's List, Junior Engineering Technical Society President, DECA ICDC Qualifier, TAMS Summer Research Scholarship Recipient, Science Olympiad Medalist, Habitat for Humanity Committee Head, GeomHacks Hackathon Winner, 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, Pre-AP Spanish III, Pre-AP Precalculus, Pre-AP Biology, Pre-AP Chemistry, Pre-AP Algebra II, Pre-AP World Geography
- Activities/Awards: Freshman Basketball, Freshman Football, Principal Cellist in School Ensemble, TMEA Full Orchestra State Champions, Highest Rank at 4 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 to cultivate a passion for science, engineering, and technology among hundreds of members at TAMS
- Designed a website promoting Science Olympiad, Science Bowl, Robotics, and volunteering within JETS
- Supervise roughly \$2000 in liquid funds, coordinate with TAMS administration to organize purchase requests

Science Olympiad, Member, Fall 2019 - Present

- Competed in multiple competitions at Cypress Falls, Louisiana Tech, UT Austin, Fort Worth Regionals 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 2nd at Regionals and qualified for the Texas State Competition

EXPERIENCE**Hepatology Research at Northwestern University, Research Assistant under Dr. Green, Summer 2019, Summer 2020**

- Worked extensively with qPCR (Quantitative Polymerase Chain Reaction) in efforts to analyze over 80 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
- Visualized liver datasets with RNA-Seq/microarray techniques; isolated significantly differentially expressed genes

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

- Cowrote pending research articles in correspondence with principal investigator; derived novel quadratic relationship between the elongation at break and Vickers Hardness values of 16 unique polymers
- Published "Tensile elongation at break for polymers related to Vickers hardness" in *Materials Letters*

Biomolecular 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, ReactJS, HTML, R, Windows, Mac OS

LANGUAGES: Native English, Spanish, Mandarin Chinese

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