

Alexandra Cristina Vela

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EDUCATION

Georgia Institute of Technology, Atlanta, Georgia

Expected May 2023

- Candidate for Bachelor of Science in Biochemistry
- GPA 3.67/4.0

RESEARCH EXPERIENCE & PROJECTS

GT - Department of Mechanical Engineering

Jan. 2020 - Present

Mentor: Andres Garcia, PhD

Undergraduate Research Assistant - Bioengineering Lab

- Proficient with the IDO Assay protocol and running it across a variety of samples.
- Engaged in in-vitro microfluidics techniques (PDMS casting and plasma bonding) and helped set up the in vitro studies.

Building ESTEEMED Summer Program

May - June 2019

Mentor: Manu Platt, PhD

- Intensive investigative study to determine the most cost-effective solution to diagnose and subtype breast cancer in Ethiopian women. My team and I came up with an idea to biopsy and culture cancer cells and test them against Estrogen to see how they would react. The result would determine whether the cancer is ER+ or ER-

Challenge Summer Program

June - July 2019

Mentor: Dr. Sybrina Atwaters

- Investigative study to determine the most cost-effective solution to fix the water crisis in Flint, Michigan. My team and I came up with an idea to coat the current pipes with a solution to clean them, without harming the environment and saving the government money on having to install new pipes in certain areas.

SKILLS

Laboratory

- Certified by National Institutes of Health in lab safety (Right To Know, Lab Safety 101, Responsible Conduct of Research)
- PDMS Casting, Absorbance Assays, Basic Microfluidic Design and Manufacturing, Basic Cell Culture

Software

- Proficient in Google, Microsoft, and Apple programs

Spoken Languages

- English, Spanish (Native)

HONORS AND AWARDS

GT-ESTEEMED Scholarship

June 2019 - Present

- Highly competitive scholarship supported by the National Institutes of Health (NIH) and designed to increase diversity in research and focused on Science, Technology, Engineering and Mathematics (STEM). Only 11 students are accepted every year.

HSF Scholar

June 2018 - Present

- Recipient of the Hispanic Scholarship Fund (HSF) which empowers Latino families with the knowledge and resources needed to successfully complete a higher education, and provides scholarships to exceptional Hispanic American students.

Office of International Education - International Plan

Aug. 2019 - Present

- 26-week abroad program that provides a global perspective and fluency designation of my major and language

Georgia Tech Dean's List

Aug. 2019 - Present

- Criteria: GPA 3.0 and above

EXTRACURRICULAR ACTIVITIES

Little Einsteins Organization (LEO)

Nov. 2019 - Present

- Participant in this chartered Georgia Tech campus organization that develops and implements Science, Technology, Engineering and Math (STEM) focused educational activities with children in the Atlanta public school system. LEO meets weekly and coordinates STEM activities at various schools in Atlanta twice a month, serving 150 children at each event

Society of Hispanic Professional Engineers

Aug. 2019 - Present

- Member of this organization which changes lives by empowering the Hispanic community to realize its fullest potential and to impact the world through STEM awareness, access, support and development.

American Medical Student Association

Aug. 2019 - Present

- Member of AMSA which is a student-governed organization committed to the concerns of students who aspire to become physicians. AMSA has a national membership of over 28,000 composed of premedical and medical students, interns, and medical residents.

LEADERSHIP

GT-ESTEEMED

Aug. 2019 - Present

- **Research Chair-** Responsible for coordinating travel to National Research Conferences, Invite Researchers to speak at meetings, and advertise Undergraduate Research opportunities for other cohort members

National Honor Society

May 2017 - May 2019

- **President-** planned and executed large-scale events (over 300 members) with my team of officers at the school including but not limited to Trunk-or-Treat, Relay for Life, and American Cancer Society Hope Lodge

TALON Student Leadership

Aug. 2015 - May 2019

- **Mentoring Committee Leader-** acted as a liaison between my organization and the guidance counselors at local elementary schools to plan mentoring dates and assign high school mentors to students who need them