

Anthony Flores

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EDUCATION

Massachusetts Institute of Technology

Pursuing Ph.D. in Chemical Engineering

Cambridge, MA

Class of 2025

Stanford University

Graduated with Honors

Stanford, CA

Class of 2020

Coursework includes: Organic and Inorganic Chemistry; Multivariable Analysis; Wet and Dry Labs

GPA: 4.14/4.00 Awards and Honors: *Stanford's Frederick Emmons Terman Engineering Scholastic Award* • *Stanford's Henry Ford II Scholar Award*
• *Stanford's Mason & Marsden Prize in Chemical Engineering* • *Stanford's Channing Robertson Outstanding Junior Award* • *Genentech Outstanding Student Award* • *Member of Tau Beta Pi Engineering Honor Society*

Loyola High School

Graduated with Highest Honors • AP Scholar

Los Angeles, CA

Class of 2016

GPA: 4.46/4.0 Academic Awards: *National Hispanic Recognition Program*, *Cum Laude Society*, *ACS Exam Highest Scoring Student*

SKILLS

- **Laboratory Skills:** Flow Cytometry, Cell Culture Technique, Confocal Microscopy, Western Blotting, SDS Page, Protein Purification Techniques (Ni-NTA column, Cation Exchange Column, etc.), Molecular Cloning and Bacterial Transformation of Cloning Vectors
 - **Computer Skills:** MatLab (Intermediate), Python (Intermediate), Microsoft Office (Word, Excel, PowerPoint)
 - **Language Skills:** Spanish Proficiency for Speaking and Writing
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WORK EXPERIENCE

Undergraduate Researcher, Stanford Bio-X Undergraduate Scholar, Stanford University, Stanford, CA Jan 2019 – Jun 2020

- Designed experiments for the directed evolution of chaperone-based protein reagents using yeast display and random mutagenesis.
- Synthesized screening parameters using fluorescence activated cell sorting to isolate protein mutants with increased stability and increased affinity for mutant Huntingtin monomers.
- Analyzed the best protein mutants using *in vitro* biochemical assays to discover the therapeutic potential of this chaperone reagent for suppressing mutant Huntingtin aggregation.

Undergraduate Researcher, Stanford ChEM-H Undergraduate Scholar, Stanford University, Stanford, CA Jan 2018 - Jan 2019

- Investigated the efficacy of using chaperone-derived reagents to mitigate Huntingtin protein aggregation, the primary cause of Huntington's Disease, in mammalian cell models.
- Engineered protein constructs and transformed plasmids into E. coli cells for protein expression.
- Refined purification protocol to optimize the yield of superpositive-GFP-labelled protein ultimately increasing the yield by 400%.
- Evaluated the efficiency of the chaperone-derived therapeutic *in vitro* and *in vivo* discovering that ApiCCT1-superpositive-GFP mitigates mutant Huntingtin aggregation at sub-stoichiometric quantities using filter trap assay.

Lead Chemistry Subject Tutor, Stanford University CTL, Stanford University, Stanford, CA Sep 2017 – Jun 2020

- Organize group meetings and manage a team of 14 chemistry tutors to ensure appropriate student outreach and quality of instruction.
- Provide outreach to approximately 500 undergraduate students enrolled in inorganic and organic chemistry courses.
- Engage with students collaboratively to help master chemistry skills and evaluate student feedback to improve the tutoring program.

Intern for School of Engineering, Engineering Diversity Program, Stanford University, Stanford, CA Sep 2016 - June 2017

- Analyzed statistics and raw data to discover trends in graduate and undergraduate minority demographics and prepared presentations for the Associate Dean for Diversity at the School of Engineering.
 - Collaborated with other interns during creative projects and organized diversity outreach initiatives such as Graduate Professional and Peer Advising which paired over 50 graduate student mentors with undergraduate students.
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LEADERSHIP AND CO-CURRICULAR ACTIVITIES

Professional Development Chair, Tau Beta Pi (TBP) California Gamma Chapter, Stanford University, CA May 2019 – Jun 2020

- Coordinate, manage, and oversee bi-weekly dinner meetings to connect Stanford TBP members with leading CEOs in the STEM field.
- Recruit and synthesize a panel of industry experts to speak on modern engineering challenges as part of our Distinguished Speaker Series.

Networking Chair, Hermanos de Stanford, Stanford, CA Jan 2017 – Jun 2020

- Develop and direct community service projects for nearby underserved communities involving mostly East Palo Alto communities.

Community Volunteer, Kids with Dreams, Stanford University, CA Sep 2018 – Jun 2020

- Partner with community organizations to promote equal opportunity and access for children and young adults with special needs.