Georgia Grace Tully

Stanford, CA 94305 • (602) 321-5029 • gtully@stanford.edu

Education

Loyola Marymount University — **Los Angeles, CA**
Bachelor of Science Candidate, Chemistry — May 2023
Overall/Major GPA: 3.78/3.76

Stanford University
PhD Candidate, Department of Chemistry
Admission to candidacy Chemistry PhD Program
February 5th, 2025

Research Experience

Loyola Marymount University, Chemistry Department — **Los Angeles, CA**
Computational Quantum Investigation of Aromatic Hydrocarbons — Fall 2020- Present

- Received SOAR (Summer Opportunities for Advanced Research) award from LMU to continue working on this project during summer 2021
- Received Honors Summer Research Fellowship from the LMU Honors Department for computer equipment Summer 2022
- Honors Thesis research performed with advisor Emily Jarvis, PhD
    - *Isolating the electronic effects of systematic twist in highly substituted aromatic hydrocarbons using density functional theory*

Stanford University, Chemistry Department

- Rotation Project- Rotskoff Group: wrote my own implementation/trained the convolutional neural network, Schrodinger Network (Schnet) on DFT calculations for water molecules as a step toward faster and more accurate MD simulations that incorporate quantum effects.

Stanford School of Medicine, Biochemistry Department

- Evaluated VAE cryo-EM models (DynaMight, 3DVA, cryoDRGN, e2gmm, 3DFlex) on simulated data from MD simulations as well as real data
- Fine-tuned an LLM on RNA structure to predict ligand binding affinities, as well as small molecule binding interactions

Molecular Pharmacology Training Fellow

- Received the NIH sponsored Molecular Pharmacology Training Fellowship
- **SPARK project:** SynaptoBoost - targeting Nlgns for treating Autism Spectrum Disorder

Abstracts and Research Presentations

- Presented poster, “Computational quantum investigation of the optical properties of twisted aromatic hydrocarbons” at the MERCURY Conference on computational chemistry Summer 2021
- Presented poster, “Investigating steric hinderance of phenyl substituents on organic semiconductors as a method for increasing electron mobility” at the ACS conference in March 2022.
- Presented poster, “Computational quantum investigation of the optical properties of twisted aromatic hydrocarbons” at the Undergraduate Symposium at Loyola Marymount University March 2022
- Presented abridged version of chemistry research to incoming freshman honors students August 2022
- Presented oral presentation, “Isolating the electronic effects of systematic twist in highly substituted aromatic hydrocarbons using density functional theory” at Southern California Conference for Undergraduate Research (SCCUR) November 2022 and at Loyola Marymount Undergraduate Symposium March 2023
- Presented Poster, “Predicting RNA-small molecule interactions via deep learning and highly scalable chemical mapping measurements” at the Stanford School of Medicine’s CSB retreat in Asilomar, CA October 2024
- Presented oral Presentation, “A novel approach toward aptamer design” at Stanford RNA club Stanford, CA February 2024
- Presented oral Presentation, “A novel approach toward aptamer design” at the CSB Pizza Talk Stanford, CA March 2024

Honors & Awards

LMU Trustee Scholarship (academic full tuition, room & board scholarship)	2019-2023
American Institute of Chemists Overall Best Graduating Senior in Chemistry (LMU)	2023
Dean’s List	2019-2023
Honors Research Fellow	2022
Molecular Pharmacology Training Fellowship	2024-2026

Relevant Experience

Chem 31A, 31B Teaching Assistant (Stanford) — **Fall/Winter 2023**
Chemical Principles -Taught two 2-hour lab course sections 6 office hours/week

Chem 143 Teaching Assistant (Stanford) — **Spring 2023**
Chemical Principles of Life II(Biochemistry)- 2 Tutorials and 3 office hours/week

Physical Chemistry Lab Teaching Assistant (CHEM 341) (LMU) **Fall 2022**
Peer Mentor for Introductory Chemistry Course (CHEM 190) (LMU) **Fall 2022**
Analytical Chemistry Teaching Assistant (CHEM 360) (LMU) **Spring 2023**
SAC Committee Member (Stanford) **2024**

LEADERSHIP EXPERIENCE

Division I Cross Country/ Track and Field, Athlete 2020- 2022
Loyola Marymount University EMS/ Phoenix Fire Department Crisis Response, EMT **2019-2021**