

CLYDE D'SOUZA

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Education

University of Connecticut

Storrs, CT

Bachelor of Science (B.S.), (Honors) Molecular and Cell Biology

August 2023 - May 2026

Bachelor of Arts (B.A.), Applied Mathematical Sciences

August 2023 - May 2026

Minors: Chemistry, English

Activities and societies: Honors Program, Daily Campus, Husky Ambassador program,

Q Center Tutor, Undergraduate Research Assistant

Cheshire High School

Cheshire, CT

High School Diploma

August 2019 - June 2023

Salutatorian

Activities and societies: Science National Honor Society, Mu Alpha Theta Honor Society

Greater New Haven Math League, CHS Boys Cross Country Team

Work Experience

Quantitative Learning Center

February 2024 – Present

Mathematics Tutor, Part-Time

Storrs, CT

- Tutored students in introductory mathematics courses including: Calculus for Business and Economics (MATH 1071Q), Calculus I (MATH 1131Q), Calculus II (MATH 1132Q), Multivariable Calculus (MATH 2110Q)
- Worked three two-hour shifts throughout the semester

Biobehavioral Research Lab, UConn School of Nursing

September 2023 – Present

Undergraduate Research Assistant

Storrs, CT

- Conducting paid, part-time research under the direction of Dr. Ruth Lucas
- Helped to set up experiments as part of the SPARK study

Research Experience

Neuroregeneration Lab, Dept. of Neuroscience, UConn Health

May 2024 – Present

Health Research Program Intern

Farmington, CT

- Selected to complete the Health Research Program under Dr. Ephraim Trakhtenberg

Biobehavioral Research Lab, UConn School of Nursing

September 2023 – Present

Undergraduate Research Assistant

Storrs, CT

- Conducting paid, part-time research under the direction of Dr. Ruth Lucas
- Helped to set up experiments as part of the SPARK study

Oral Drug Delivery Lab, UConn School of Pharmacy

August 2023 – Present

Undergraduate Research Assistant

Storrs, CT

- Studying the diffusion dynamics of amorphous nanoparticles under the direction of Dr. Na Li (PI) and Akshay Narula (supervising Ph.D. student)
- Conducted research on biphasic diffusion in an effort to understand how surfactants affect the diffusion of amorphous nanoparticles in a solution, using an aqueous phase to mimic the gastrointestinal fluid and decanol to represent the lipid-rich environment of the intestinal wall
- Worked on a project designed to produce novel mechanistic insights on the particle drifting effect, a mechanism where colloidal drug particles enhance passive membrane permeability by overcoming diffusional resistance
- Helped to calculate differential equations to model drug transport
- Received the OUR Supply award for “Mechanistic Studies on the Permeability of Non-Membrane Permeable Drug Nanoparticles,” with a research poster presented at the Frontiers in Undergraduate Research Poster Exhibition in Spring 2024

Activities & Organizations

Husky Ambassador Program

February 2024 – Present

Husky Ambassador

Storrs, CT

- Functioned as a student host for the Husky-for-a-Day Program, which allows prospective students to shadow current UConn students
- Went about my day as normal in order to show prospective students what it is like being a student at UConn – the prospective students experience college academics, student organizations, and the resources that UConn has to offer by seeing it all firsthand

The Daily Campus

September 2023 – Present

Campus Correspondent

Storrs, CT

- Wrote articles regularly for the undergraduate newspaper's Life section
- Writing explored current events around campus, and recently released media online

Boy Scouts of America

January 2023 – Present

Assistant Scoutmaster

Cheshire, CT

- Assisted in teaching and training youth members
- Provided support on campouts and during weekly meetings

Boy Scouts of America

March 2016 – December 2022

Youth Member

Cheshire, CT

- Assisted in a variety of environmental service projects, campouts, and leadership activities
- Helped to lead meetings in positions such as Senior Patrol Leader
- Eagle project involved building a ramp to improve the accessibility of the trail and installing water bars on a sloped area to protect against soil erosion

Volunteering

CT Heart Camp

August 2022 – Present

Senior Counselor

Morris, CT

- Volunteered annually as a junior counselor for Yale New Haven Hospital's CT Heart Camp
- A three-day summer camp in late August designed for children with congenital heart defects
- Helped lead campers (ages 8-15) throughout their stay

American Red Cross

August 2019 – August 2022

Blood Donor Ambassador

CT

- Helped to manage the reception process and hospitality experience, assisting in the registration of donors

Projects

"Only 'like' for 'Love at First Sight'"

September 2023

Daily Campus

Storrs, CT

- A movie review written for the University of Connecticut's student-run newspaper, The Daily Campus.
- <https://dailycampus.com/2023/09/19/only-like-for-love-at-first-sight/>

Honors & Awards

Health Research Program | Office of Undergraduate Research

February 2024

- Selected by the Office of Undergraduate Research and Dr. Ephraim Trakhtenberg through a match-based system to work in the Neuroregeneration Laboratory during the summer of 2024
- Received a \$4,000 stipend for a commitment of 360 hours of summer research (10 full-time weeks)

Alpha Lambda Delta | ISS, FYP & LC

January 2024

- An honor society for first year students who have achieved a 3.5 GPA or higher and are in the top 20% of their class during their first year or term of higher education.

Dean's List | UConn College of Liberal Arts and Sciences

Fall 2023 Semester

- Ranked in upper 25th percentile of the UConn College of Liberal Arts and Sciences during the given semesters

OUR Supply Award | UConn Office of Undergraduate Research

September 2023

- The award was provided by the UConn Office of Undergraduate to cover \$500 worth of expenses related to my research project entitled “Mechanistic Studies on the Permeability of Non-Membrane Permeable Drug Nanoparticles”
- The research project was then presented at the Frontiers in Undergraduate Research Poster Exhibition in the Spring of 2024
- <https://nali.lab.uconn.edu/2023/09/14/award-12/>

Presidential Scholars Award | *UConn Office of Undergraduate Admissions*

May 2023

- A merit-based scholarship for graduating Connecticut seniors that rank first or second in their graduating class
- Covers full tuition
- Includes an enrichment award fund of \$2,500 that can be used by a scholar to fund research, eligible study abroad costs, internship, public service and other enrichment activities

Salutatorian | *Cheshire High School*

June 2023

- Ranked second in graduating class of 329 students
- <https://patch.com/connecticut/cheshire/chs-student-athletes-featured-speakers-chs-graduation-6-14-23-6-pm>

AP Scholar with Distinction | *College Board*

July 2022

- Awarded to students who achieve an average score of at least 3.5 on all AP Exams taken, and scores of 3 or higher on five or more exams

Eagle Scout | *Boy Scouts of America*

June 2022

- The highest rank awarded to boy scouts after the completion of a capstone “Eagle Scout” service project
- Eagle project involved building a ramp to improve the accessibility of the trail and installing water bars on a sloped area to protect against soil erosion

Skills

Software: R, L^AT_EX, MATLAB, GraphPad Prism, Google Sheets, Multivariate Statistical Analysis

Laboratory: Gel Electrophoresis, Micropipetting, Rotary Evaporation, Centrifugation, UV-Vis Spectroscopy

Interpersonal: Tutoring, Mathematical Writing, News/Critique Writing

Test Scores

SAT | *College Board*

December 2022

- Score: 1550
- Reading and Writing: 760, Math: 790

AP Examinations | *College Board*

July 2021 – July 2023

- Scored 5 on: AP Biology, AP Computer Science Principles, AP Environmental Science, AP Macroeconomics, AP Microeconomics, AP Physics C: Mechanics, AP Psychology, AP English Language and Composition, AP Physics 1, AP Statistics, AP United States Government and Politics, AP Calculus BC, AP Computer Science A
- Scored 4 on: AP United States History, AP Physics 2, AP English Literature and Composition