

MIHIR GUPTA

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EDUCATION

The University of Texas at Austin, Austin TX | Class of 2024 | GPA: 4.0 / 4.0

- B.S.Bio Computational Biology, B.S.A. Chemistry Honors, B.A. Plan II Honors
- Pre-Health Professions Certificate, Elements of Computation Certificate, Scientific Computation and Data Sciences Certificate, Computational Science and Engineering Certificate, French Studies Minor, English Minor
- Health Science Scholars Honors Program, Plan II Honors Program

RESEARCH EXPERIENCE

Research Assistant, Texas Twin Project | Austin, TX

09/2021–Present

- Collected saliva samples and extracted DNA to be analyzed for genetic markers
- Investigated the “Nature versus Nurture” question by examining DNA in both identical and fraternal twins and their environments

Undergraduate Researcher, Russell Lab | Austin, TX

06/2021–Present

- Discovered the attractions and repulsions between DNA strands marked with Disulfide and Thiol groups
- Collected and stored DNA samples modified with Disulfide and Thiol groups and radiolabeled (P-32) DNA
- Calculated kinetic rate of attraction between DNA strands in various molar concentrations of Cobalt Hexamine

FRI Microbe Hackers – Evolutionary Stability | Austin, TX

01/2021–Present

- Investigated the stability of DNA sequences found in *E. coli* by growing cells with broken antibiotic resistance genes
- Computed mutation rates of antibiotic resistance genes by performing fluctuation tests in R
- Interpolated caffeine concentration of unknown solution using modified *E. coli* cells mutated to depend on caffeine for survival by performing bioassays comparing various known concentrations of caffeine to the absorption of the sample

International Genetically Engineered Machine Team | Austin, TX

06/2021–08/2021

- Collaborated with teams from other universities to share experimental methods, trial and error processes, and general project aims and information regarding the specific PETase and MHETase enzymes
- Aided in development of education and communication materials including a promotional summarizing video of the project, development of the wiki page, and leading the team to produce content for and engagement with our Instagram Page:

https://www.instagram.com/ut_austin_igem/

WORK EXPERIENCE

Undergraduate Teaching Assistant, UGS 303H, Originality in the Arts and Sciences | Austin, Texas

08/2021–Present

- Lead cohort of 5 honors students to complete two major writing projects: grant proposal and humanities inquiry
- Coordinated with head undergraduate teaching assistant, graduate teaching assistants and course professor
- Informed and introduced incoming honors students to the UT Austin College of Natural Sciences honors programs

Private Tutor | Plano, TX

06/2018–01/2021

- Prepared lessons and tutored fourth through eighth graders in reading comprehension, vocabulary, earth and space science, biology, pre-algebra, and algebra I
- Consulted parents with their goals and expectations

Coronavirus Tester and Screener, Baylor Scott & White Health | Plano, TX

09/2020–11/2020

- Provided COVID-19 screening for visitors and hospital staff to limit the spread of COVID-19
- Coordinated patient visits with hospital staff and medical professionals to ensure low rates of transmission
- Informed visitors on the SARS-CoV-2 Virus, including education on symptoms, how to reduce its spread and transmission, how to stay safe, and how to prevent others from contracting SARS-CoV-2 virus

VOLUNTEER EXPERIENCE

Volunteer, Dell Seton Medical Center | Austin, Texas

06/2021–Present

- Aided nursing staff in facilitating patient discharges and in monitoring pneumatic tube station, patient call lights, and phone
- Maintained stock and inventory of medication rooms on patient floor

Senior Vision Screener, Prevent Blindness Texas | Dallas, TX

06/2018–03/2020

- Arranged vision screening booths and other screening events in remote and underprivileged areas of DFW
- Operated complimentary vision screenings for those who could not afford a comprehensive eye exam
- Informed about vision, vision screenings, and eye health to the attendees and patients
- Trained new volunteers to conduct Adult and Child Vision Screenings

LEADERSHIP EXPERIENCE

Vice President, Beta Beta Beta Biological Honors Society | Austin, Texas

08/2021–Present

- Coordinated with President and officers to plan info sessions and meetings for Biological Honors Society Members
- Coordinated with guest speakers to speak about their careers in medicine, academia, graduate school, and research
- Planned social meetings for members including study nights and game nights

College Volunteer Leadership Program, Dell Seton, and Ascension Seton Medical Centers | Austin, Texas

08/2021–Present

- Managed onboarding, training, and scheduling of the more than 600 college student volunteers in the Dell Seton Medical School at the University of Texas and Ascension Seton Medical Center Austin Volunteer Services' Program
- Reviewed Summer 2021, Fall 2021, and Spring 2022 bonus volunteer hours

AWARDS AND HONORS

- College of Natural Sciences Second Year Excellence Award, Spring 2022
- Distinguished College Scholar, College of Natural Sciences and College of Liberal Arts, Spring 2022
- Summa cum laude, College of Liberal Arts Dean's Honors List, Spring 2021 and Fall 2021
- National AP Scholar and AP Scholar with Distinction, Spring 2020, Spring 2019