

ASHMA PANDYA

apandy23@uic.edu

<https://ashmapandya.github.io>

EDUCATION

Honors College, University of Illinois - Chicago (UIC)

B.S. Biochemistry (Minor: Computer Science)

GPA: 4.0/4.0 (Dean's List)

Expected: May 2023

Coursework Organic Chemistry, Calculus, Linear Algebra, Genetics, Cell Biology, Animal Physiology

Lab Skills Solid Phase Peptide Synthesis, High Performance Liquid Chromatography (HPLC), Spectroscopy (Mass, IR, ¹H and ²D Nuclear Magnetic Resonance (NMR), Circular Dichroism (CD), UV-Visible), Cyclic Voltammetry, Glove Box use, Mouse Dissection, Slide Preparation, Fluorescence Microscopy

Programming Python, MATLAB, LaTeX

Languages Fluent in English, Hindi and Gujarati, proficient in German, conversant in French

PUBLICATIONS

- [1] S. Heinz-Kunert, **A. Pandya**, and A. I. Nguyen, "Sequence driven supermolecular assembly featuring peptidic scaffolds," 2021, *In Preparation*.
- [2] N. Kumari, A. Upadhyay, R. Kumar, A. Shukla, P. R. Paul, S. Marcha, K. Tuteja, K. Kalia, D. Chauhan, T. Sharma, **A. Pandya**, and A. Bhardwaj, "SARS-CoV-2 Inhibitor Open Repository," 2021, *In Preparation*.
- [3] **A. Pandya**, S. Heinz-Kunert, and A. I. Nguyen, "Engineering the geometry of metalloprotein nanocages using proline for targeted drug delivery," 2021, Abstract.
- [4] A. Passi, B. Jolly, T. Sharma, **A. Pandya**, and A. Bhardwaj, "Data-driven systems level approaches for drug repurposing: Combating drug resistance in priority pathogens," in *In Silico Drug Design: Repurposing Techniques and Methodologies*. K. Roy, Ed., Academic Press, 2019, ch. 8, pp. 229–253.
- [5] **A. Pandya**, *Meraki*. 2019, Anthology of selected self-composed poetry, ISBN: 9781736762813.
- [6] **A. Pandya**, "Fire and Snow," in *Pendle War Poetry Competition - Selected Poems 2018: Under 18 and Overseas Entries*, P. Breeze, Ed., Pendle War Poetry, Oct. 2018, ISBN: 1909643319.

EXPERIENCE

RESEARCH

Undergraduate Researcher, Department of Chemistry, UIC

Nguyen Lab, Inorganic Chemistry

Jan 2020 - Present

Dr. Andy I. Nguyen

Developed stimuli-responsive nanocages using proline as part of an independent research project. Assisted graduate researchers and trained new lab members. Participated in Journal Clubs and wrote grant proposals.

Undergraduate Researcher, Centre de Recherche Interdisciplinaire, France

AB-OpenLab

Dec 2020 - Present

Dr. Anshu Bhardwaj

Analyzed 23 assays used to curate the SARS-CoV-2 inhibitor library of the National Center for Translational Sciences. Identified compounds to add to the comprehensive SARS-CoV-2 Inhibitor Open Repository (SAVIOR).

Intern, Bioinformatics Centre, Institute of Microbial Technology, India

AB-OpenLab

Mar-Apr 2018

Dr. Anshu Bhardwaj

Analyzed antibiotic resistance trends for W.H.O's 12 priority pathogens. Co-authored a book chapter outlining drug re-purposing as a strategy to combat antibiotic resistance resulting from bacterial evolution.

TEACHING

Teaching Assistant, Department of Computer Science, UIC

CS 112: Program Design I in the Context of Biological Problems

Aug - Dec 2020

Prof. Patrick Troy

One of 3 TAs chosen to mentor 96 students in an undergraduate Python course. Held office hours to assist students with lab assignments, developed strategies to increase student engagement, designed questions for course assessments.

Peer Leader, Math & Science Learning Center, UIC

PHYS 100: Preparatory Physics

Tutored 61 students across 3 sections of an undergraduate Calculus-based Physics course.

Jan - May 2020

Prof. Meisam Rezaei

AWARDS, SERVICE AND LEADERSHIP

Co-Chair of Mentorship , National Goldwater Scholars Community	2021
Barry Goldwater Scholarship , UIC	2021
Honors College Research Grant , UIC	2020 - 2021
Honors College Travel and Conference Grant , UIC	2021
Oral Presenter , National Conference for Undergraduate Research	2021
Oral Presenter , Impact and Research Week, UIC	2021
Honors Council Award , UIC	2021
Chancellor's Undergraduate Research Award , UIC	2020 - 2021
Phi Beta Kappa , Iota of Illinois Chapter, UIC	2021
Assistant Director of Administration , National Residence Hall Honorary, UIC	2020 - 2021
President's Volunteer Service Award , President's Council on Service and Civic Participation	July 2020
Mentor , IGNITE Exploring Leaders Program, UIC	May 2020