

Nisha Janamanchi

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EDUCATION

University of Illinois at Urbana-Champaign

Bachelor's of Science at the Grainger College of Engineering

Major: Bioengineering- Computational and Systems Biology

Minor: Computer Science

Expected Graduation: May 2025

Cumulative GPA: 3.62/4.00

PROFESSIONAL EXPERIENCE

Carl R. Woese Institute for Genomic Biology

Champaign, IL

Undergraduate Research Assistant at the Maslov Lab

December 2022-Present

- Understanding bacterial interactions between gut microbiome bacteria, using transformer neural networks with Python and the machine learning library PyTorch to determine which microbes to replace to make a more stable gut environment.

Sudden Cardiac Death Awareness Research Foundation(SCARF)/ Elite Cardiology

Elgin, IL

Intern

June 2019-Present

- Analyzed cardiac data (ECG), created empirical statistical models tracking disease progression for patients when given varying cardiac output measurements, and assisted cardiologist.
- Built community awareness for Sudden Cardiac Death and donated AEDs to local businesses through events and fundraisers
- Presented about the importance of artificial intelligence in the healthcare field to local medical professionals at a scientific symposium

Mathnasium

South Barrington, IL

Instructor

February 2020-August 2021

- Instructed over 100 students ages 6-15 in varying math concepts, homework, and Mathnasium curriculum
- Hosted a Pi Day event for students by organizing fun, challenging math games and competitions throughout the day

Summer Research Program in Computational Biology at Carnegie Mellon University

Pittsburg, PA

Participant

June 2020-August 2020

- Learned about the field of computational biology from CMU professors, and developed and used basic algorithms in programming language GO to analyze biological data, gene assembly, and edit genomes.
- Worked on project analyzing the coronavirus genome and its varying mutations present in different areas of the world during the peak of the COVID-19 pandemic

LEADERSHIP & INVOLVEMENT

Theta Tau Professional Engineering Fraternity

Champaign, IL

First-Year Member

January 2022-Present

- Selected in a member class of 18 dedicated to engaging in networking, professional development events, philanthropy events, and weekly chapter meetings.

Illinois Medical Advancements through Design and Engineering (I-MADE)

Champaign, IL

First Year Member

August 2022-Present

- Working with a team of 5 to design a cost-effective wristband using biosensors that screens for signs of sepsis in post-operative patients.
- Goal is to accurately measure for various vitals and indicate potential cases of sepsis to both the patient and physicians before it reaches its later, more fatal stages.

UIUC Cancer Scholars Program

Champaign, IL

Second-Year Member

August 2021-Present

- Selected in a class of 30 members dedicated to expanding knowledge of cancer, cancer detection and treatment of cancer through engineering solutions.

LANGUAGES & SKILLS

- Fluent in English | Intermediate in Spanish
- Proficient coding in Java, C++, MATLAB, and Python
- Wet Lab Experience in bacterial transformation, protein extraction, gel electrophoresis, and PCR