Aakriti **Lakshmanan**

RESEARCH ASSISTANT

☐ 704-293-0705 | ✉ aakritilakshman@gmail.com | in aakriti-lakshmanan

Rising college freshman at Stanford University with interesting in exploring the intersection of biology and computer science. Excited for opportunities to apply prior experience in wet-lab biology and chemistry to a computational, innovative setting. Dependable and organized team player with the ability to communicate effectively and efficiently. Passionate about public speaking, scientific research, and utilizing computational biology to improve the lives of those in need.

Education

Stanford University   *San Francisco, California*

BIOMEDICAL COMPUTATION   *Aug. 2021 - 2025*

- Will join Stanford's Class of 2025 in Fall 2021.

Levine Middle College High School/Central Piedmont Community College   *Matthews, North Carolina*

ASSOCIATES IN ENGINEERING   *Aug. 2019 - May 2021*

- Valedictorian, GPA: 4.78/5
- Fully dual enrolled in college for the past two years, also attend North Carolina School of Science and Mathematics
- Relevant Courses: Linear Algebra, Differential Equations, Multivariable Calculus, Nanotechnology, Bioinformatics, Genetics, Computational Medicinal Chemistry, Scientific Programming

Skills

Technical Skills	Python, Mathematica, LaTeX, Certified in Microsoft Access/Excel
Specialized Software	StarDrop (drug discovery), Genome Browsers, PyMOL (molecular visualization), Molegro (protein docking)
3D Modeling	Autocad, Inventor, SolidWorks

Experience

MIT/CEE Research Science Institute   *Online*

RESEARCH SCHOLAR   *Jun. 2020 - PRESENT*

- One of 86 high school students internationally selected to participate in the 2020 Research Science Institute.
- Worked in the Manoli Laboratory in the field of Computational Neuroethology at UCSF
- Completed a project on utilizing machine learning for identifying social vole behaviors in behavioral assays in order to make vole studies more accessible and enable correlations between behavioral and neural data.
- Achieved accuracy of 98%+ and reduced labeling time from 3 hours to 10 minutes.
- Currently pioneering new deep learning techniques for identifying animal pose markers using DeepLabCut software.

Rabinovich Chemistry Lab at the University of North Carolina at Charlotte   *Charlotte, North Carolina*

RESEARCHER FOR <SYNTHESIS AND CHARACTERIZATION OF NOVEL HETEROCYLIC COMPOUNDS>   *Jun. 2018 - Dec. 2019*

- Developed silver-based chemotherapeutics and novel mercury complexes of N-heterocyclic ligands for catalytic applications.
- Synthesized organic ligands with various aromatic substituents and donor ions and characterized compounds through crystallization, hydrogen, and carbon NMR spectroscopies, and elemental analyses.
- Presented at the Summer Research Symposium and the State of North Carolina Undergraduate Research Symposium.

World Science Scholars   *Online/New York City, New York*

SCHOLAR   *Jan. 2019 - Jan. 2021*

- Took high-level courses such as Rewriting the Code of Life with CRISPR and Brain-Machine Interfaces
- Work on projects with fellow participants.
- *Featured in city newspaper.*

Science Buddies   *Online*

STUDENT EXPERT   *Mar. 2019 - PRESENT*

- Help answer questions from young, aspiring researchers on the Ask An Expert Forum on the Science Buddies website.
- Specifically aid students in grades K-8 with questions relating to Life Science.
- Example questions include how to build a DIY incubator and troubleshooting problems with antibiotic effectiveness studies.

Honors & Awards

2021	**Outstanding Delegate + Position Paper Award**, National Model UN Conference (UNAIDS)	*New York City, NY*
2021	**1st Place**, State NC Student Academy of Science (Biotechnology)	*Raleigh, NC*
2020	**1st Place**, Regional NC Student Academy of Science (Environmental Science)	*Charlotte, NC*
2019	**4st Place Grand Award**, International Science and Engineering Fair (Chemistry) - *View Abstract*	*Phoenix, AZ*
2019	**1st Place/3rd Place**, Future Problem Solvers State (Action Plan/Booklet)	*Banner Elk, NC*
2019	**1st Place**, North Carolina State Science and Engineering Fair (Chemistry)	*Raleigh, NC*
2018	**State Winner**, Stockholm Junior Water Prize National Competition	*Charlotte, NC*