

LELA BONES

Conrell University PhD Student in Biomedical Engineering

◇ (302)542-2910 ◇ lb754@cornell.edu ◇

EDUCATION

Cornell University, NY

PhD in Biomedical Engineering

2020 - (Expected)2026

Lewis Lab GRA

GPA : 3.93/4

Salisbury University, MD

Bachelors of Science in Mathematics

2016 - 2020

Bachelors of Science in Computer Science

2016 - 2020

GPA : 3.76/4

Honors: *Magna Cum Laude*, *Bellavance Honors College*, *Departmental Honors*,
Department Service Award, *Henson Deans List*

MENTOR EXPERIENCES

NSF LSAMP Mentor

May 2021 - August 2021

Cornell University, Ithaca, NY

Over the summer, I mentored a rising Senior undergraduate student doing an REU in the Lewis Lab. Together we learned how to read scientific literature, perform data analysis in Matlab, and make/present a poster.

RESEARCH EXPERIENCES

Amgen Scholar at Johns Hopkins

May 2019 - August 2019

Johns Hopkins, Baltimore, MD

- Comparing motion capture data using a Siamese Neural Network Model.
- Learning hand on research skills in a laboratory setting.
- Networking with some of the top bio-engineers in the country.

Undergraduate Research Fellow

May 2018 - August 2018

National Institute of Standards and Technology, Gaithersburg, MD

- Creating character level language models using Recurrent Neural Networks.
- Generating a natural language reference data set from the language model.
- Collaborating with companies in the manufacturing industry and their data sets.
- Developing and demonstrated a visualization dashboard of tagged style data.

WORK EXPERIENCE

Peer Tutor

August 2019 - Present

Salisbury University, Salisbury, MD

- Holding sessions specifically for one class.
- Supplementing the teaching of the professors.
- Creating study guide material for exam reviews.

Maker Lab Technician

August 2018 - Present

Salisbury University, Salisbury, MD

- Assisting students in building projects with 3-D printers, 3-D scanners, Arduino boards, Raspberry Pis, and an HTC Virtual Reality Headset.
- Managing, coordinating, and troubleshooting the technology in the lab.

Resident Assistant

August 2017 - December 2018

Salisbury University, Salisbury, MD

- Coordinating biweekly programs/events for the resident.
- Aiding residents with academic, time management, social, and personal problems.
- Engaging and maintaining the community of the resident halls.

Tutor

August 2017 - Present

Salisbury University, Salisbury, MD

- Privately tutoring individuals ranging from high school mathematics up to college level.
- Assisting students in lower level college math and computer science courses.
- Assisting second English language speaking students in algebra at Bennett High with the Gear Up program.

Software Engineer

May 2017 - August 2017

OmniTech Professionals, Salisbury, MD

- Managing websites for small companies.
- Designing and developing an interactive children's application using Phonegap.

Research Help Desk

September 2016 - May 2017

Salisbury University, Salisbury, MD

- Assisting patrons with research related questions, through the phone, face-to-face, and on the web chat.
- Navigating World Cat Catalog database system.

SELECTED CONFERENCES/PUBLICATIONS

National Conference of Undergraduate Research

April 2019

Interpreting EEG signals with OpenBCI Hardware

Lela Bones, Dr. Joseph Anderson

Kennesaw, Georgia

Submitted Accepted with Minor Revisions

Conjecture O holds for some horospherical varieties of Picard rank 1.

L. Bones, G. Fowler, L. Schneider, R. Shifler.

Joint Mathematics Meeting

January 2019

Conjecture \mathcal{O} holds for some Horospherical Varieties of

Picard rank 1

Baltimore, MD

Lela Bones, Garrett Fowler, Dr. Lisa Schneider, and Dr. Ryan Shifler

NIST SURF Plenary Speaker

August 2018

Synthesizing and Visualizing Data from Maintenance Logs for

Smart Manufacturing Analysis

Gaithersburg, MD

Lela Bones, Thurston Sexton

Salisbury Undergraduate Student Research Conference

April 2018

A mathematical model for linguistic migration and the

popularity of languages

Salisbury, MD

Shannon Bull, Lela Bones, and Laurie Short

TECHNICAL SKILLS

Programming Languages: Python, C++, C, Java, Bash, JavaScript
Scientific Tools: Matlab, Wolfram Mathematica, Minitab, Pytorch, OpenMPI/MPICH, SciKit-Learn, Tensorflow, Scipy, LAPACK, HoloViews
Project Management Technologies: Monday.com, Github
Web Backend Technologies: Neo4J, MongoDB, PHP, SQL
Web Frontend Technologies: Flask, Bootstrap, NodeJS, ReactJS, AngularJS

EXTRA CURRICULAR/ACTIVITIES

Cornell Graduate Student School Outreach Program, <i>Catalog and Survey Coordinator</i>	August 2021 - Present
Vaccination Conversations with Scientists, <i>Organizing Leader</i>	June 2021 - Present
Biomedical Engineering Women Group, <i>Professional Lunch Series Coordinator</i>	January 2021 - Present
Biomedical Engineering Society, <i>Co-Chair of Community Engagement</i>	January 2021 - Present
Omnicon Delta Kappa Honor Society, <i>President</i>	November 2019 - May 2020
2019 Amgen Scholar Symposium, <i>Attendee</i>	July 2019
Technica, <i>Participant</i>	November 2018
JP Morgan Code for Good, <i>Participant</i>	September 2017, September 2018
SU Math and Computer Science Club, <i>President</i>	August 2018 - May 2020
SU Women in Technology Club, <i>Secretary</i>	November 2018 - May 2020
Delpha Alpha Pi Honor Association, <i>Treasurer</i>	May 2018 - May 2020
Phi Mu Epsilon Honor Society, <i>Member</i>	May 2018 - Present
Association for Women in Mathematics, <i>Member</i>	January 2017 - May 2020
Mathematical Association of America, <i>Member</i>	August 2016 - May 2020
SU Student Government Association, <i>Senator</i>	August 2016 - May 2017
College Park Research Symposium, <i>Attendee</i>	September 2017
Asian and Pacific Islander Club, <i>Chair of Education</i>	August 2017 - May 2017

AWARDS AND ACCOMPLISHMENTS

Cornell University Fellowship 2020, *Recipient*
Upsilon Pi Epsilon 2019 Academic Achievement Award, *Recipient*
Delta Alpha Pi 2019 Scholarship, *Runner Up*
We are SU Capital Campaign Kickoff Gala, *Keynote Speaker*
Comap Mathematics Competition for Modeling 2019, *Meritorious Honor*
Joint Mathematics Meeting 2019, *Outstanding Poster Award*
Comap Mathematics Competition for Modeling 2018, *Honorable Mention*
Daily Computers Inc. 2018 and 2019 Scholar, *Recipient*
K and L Microwave Scholar 2017, *Recipient*
Salisbury University Henson Scholar 2017-Present, *Recipient*
Salisbury University Presidential Scholar 2016, *Recipient*
Salisbury University Delmarva Peninsula Scholar 2016, *Recipient*
Salisbury University Foundation Scholar 2016, *Recipient*
Fulton Bank Diversity Scholar 2016, *Recipient*