lb754@cornell.edu

LELA BONES

302-542-2910

lelatbones.github.io | https://github.com/lelatbones | https://www.linkedin.com/in/lelabones/

Education

Cornell University, NY 2020 - (expected) 2026

- PhD in Biomedical Engineering | Lewis Lab GRA

GPA : 3.93/4

Salisbury University, MD 2016 - 2020

- BS in Mathematical Sciences | BS in Computer Science

GPA : 3.76/4

Experience

Cornell Graduate Research Assistant May 2020 - Present

In the Lewis Lab I studied imaging, multi-photon microscopy, bone biomechanics, and machine learning while studying for my PhD in biomedical engineering. I also mentored 3 undergraduate students and helped setup the confocal microscope and server in the lab.

Amgen Scholar at Johns Hopkins May - Aug 2019

In the Vision Lab I compared motion capture data using motion augmentation, dynamic time warping methods, and a custom built Siamese Neural Network Model.

OmniTech Professionals May - Aug 2017 & March - Aug 2020

As a software engineer, I built the backend database, controllers, and users for MarylandSeatbank. This website was built using Laravel and allows students to take classes offered in the Maryland Community College School System.

National Institute of Standards and Technology May-Aug 2018

As an undergraduate research fellow, I built a visualization dashboard for NESTOR and presented as the plenary speaker for the Engineering Laboratory at the NIST SURF Conference. I used natural language processing to train a recurrent neural network to replicate spelling errors that are often found in our datasets without sharing private company information to build the dashboard. The dashboard is a Flask App that serves dynamic graphs inside (example code merger with HoloViews on GitHub).

Coding Languages

- Python, C++, C, Java, Bash, JavaScript, C#, HTML, CSS

Scientific Tools

- Matlab, Wolfram Mathematica, Minitab, Pandas, Jupyter, Conda, Docker, Numpy, Pytorch, Keras, Tensorflow, Scipy, SciKit-Learn, Matplotlib

Project Management Technologies

- Monday.com, github.com (git), Slack, Tableau

Web Technologies

- Neo4J, MongoDB, PHP, SQL, Laravel, Flask, Bootstrap, NodeJS, ReactJS

Volunteer

Home Green Home - Stocker and Scanner
Cornell Graduate Student School Outreach Program - Catalog and Survey Coordinator
Cornell Vaccination Conversation with Scientist - Chair of Data Analysis
Cornell Biomedical Engineering Women Group - Professional Lunch Series Coordinator
Cornell Biomedical Engineering Society - Co-Chair of Community Engagement