

Salma Elhassa

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EDUCATION

Master of Science in Biomedical Engineering | Columbia University, New York, NY

- *Upcoming Coursework:* Linear Algebra, Calculus III, Differential Equations

Bachelor of Arts in Biology Bioinformatics | Hunter College City University of New York, New York, NY

- *Relevant Coursework:* Introduction: Computer Science; Introduction to Applied Statistics; Practical Unix Programming; Relational Databases and SQL; Computational Molecular Biology; Biomedical Genomics
- *Awards/Honors:* ABRCMS Conference Poster Presentation Award, Academic Merit Scholarship, Ronald E. McNair Post-Baccalaureate Achievement Scholarship, Mary C. Tiedemann Scholar, Pinkerton Science Scholar

RESEARCH EXPERIENCE

Post-Baccalaureate Research Scholar | Baylor College of Medicine, Houston, TX

July 2022 - Present

- Designed and implemented a year-long clinical research project in Dr. Kelly Bijanki's Neurosurgery lab, focusing on studying the covariance of depression symptom severity with electroencephalogram (sEEG) recordings.
- Conducted behavioral tasks and performed simultaneous recordings of sEEG electrodes and Deep Brain Stimulation lead extensions.
- Extracted and analyzed spectral features from sEEG recordings using MATLAB and R programming, generating figures, and performing statistical analysis.
- Certification: Responsible Conduct of Research for Clinical Investigators.

Student Researcher | Icahn School of Medicine, Dr. Eric Nestler Lab, New York, NY

February 2021 - May 2022

- Conducted behavioral testing sessions and data collection using C57BL/6J mice to study emotion processing in complex decision-making.
- Administered behavioral tasks, recorded data, and ensured proper experimental setup.
- Assisted with brain slicing and staining procedures.
- Certifications: Wet Lab Training, Biomedical Responsible Conduct of Research, Data Security and HIPAA training.

Student Researcher | Weill Cornell Medical Center, Dr. Christopher Mason Lab, New York, NY

June 2020 - January 2021

- Contributed to The Microbe Directory Project by researching and classifying various fungi, bacteria, and viruses.
- Analyzed urban biomes and microbiomes in the New York City Subway using Python, Bash script, SQL, and R programming languages.
- Assisted with data analysis and visualization.

LEADERSHIP EXPERIENCE & ACTIVITIES

Math Coach | REMIND Tutoring Program, Remote

December 2022 - Present

- Prepare lesson plans and tutor junior and high school students in Pre-Algebra, Algebra I, and Geometry.

Democracy Coach | Generation Citizen, New York, NY

October 2022 - December 2022

- Mentored an eighth-grade class, guiding students in active citizenship within their community.

Student Ambassador | Student Welfare Committee - Hunter College Undergrad Student Government

November 2018 - May 2019

- Collaborated with student officials to host events, activities, and address student concerns.

Health Educator | Peer Health Exchange, New York, NY | October 2018-May 2019

- Delivered mental, sexual, and emotional health education to high school students.

SKILLS

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- *Technical Skills:* Bioinformatics Analysis, Genome Sequencing, Data Analysis, Database Query Writing, Metagenomics Analysis, PCR, Electrophoresis
 - *Programming Languages:* R, Python, SQL, Bash Script
 - *Tools and Software:* MATLAB, Unix, AWS, Google Cloud, NGS Analysis

ADDITIONAL INFORMATION

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- Strong problem-solving and analytical skills with a focus on complex data analysis.
 - Excellent communication and teamwork abilities developed through collaborative research projects and leadership roles.
 - Fluent in English and Arabic.