

Mitik Merchant

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EDUCATION

EMORY UNIVERSITY

Aug 2020 - May 2024

Bachelor of Science in Biology

Bachelor of Science in Computer Science

WORK EXPERIENCE

Henke Lab, Emory University, Atlanta, Georgia

September 2023 - Present

Research Associate

- Collaborated with principal investigator and fellow research team members to collect data on the zebrafish specimens following laboratory protocols using micro CT technology.
- Analyze collected zebrafish imaging slices using FishCuT and compared data on differences in length, mass, mineral composition of zebrafish skeletons, across male and female specimens, and different mutations.
- Create Python scripts and improve upon existing applications, such as FishCuT, ImageJ, and ZFBONE used by the lab to aid in a heightened and more concise analysis of zebrafish specimens using the micro CT machine.

BDG Lifesciences, Boston, MA

June 2022 - August 2022

Insilico Molecular Biology and Genetic Engineering Intern

- Trained in techniques used for genetic analysis and engineering such as PCR, microarrays, and gel electrophoresis, and applied the skills towards protein design and development.
- Examined the NCBI genome database and identified similarities in amino acid sequence and the resultant protein sequence across several different species and subspecies.
- Explored the functions of the BLAST tool used by NCBI to look for specific properties of gene sequences.

Emory University Hospital, Atlanta, GA

February 2021 - May 2021

Data Analyst

- Trained in the Department of Anesthesiology to administer changes to the front end of the SQL database of all surgeries at Emory University Hospital locations that utilized anesthetics.
- Verified changes to the database, from the back end, made by myself and collaborators for accuracy using previously submitted, original medical records and corrected errors when they presented themselves.
- Experimented and tested with changes in the back end of the database to increase efficiency for access and entry.

LAB EXPERIENCE

- **Competence in Biology wet lab techniques:** Micro pipetting, Gel electrophoresis, Polymerase Chain Reaction, Investigation of various structures in cells with microscopes, Isolation of DNA strands, Streaking bacteria for isolation, and basic use of laboratory instruments.
- **Competence in Chemistry lab techniques:** Recrystallization, distillation, liquid-liquid extraction, thin layer chromatography, gas chromatography, column chromatography, and use of laboratory instruments.

LEADERSHIP EXPERIENCE

Emory Orientation Leader

March 2022 - December 2022

Emory Club Crew | Executive Board | Treasurer | Coxswain

August 2021 - Present

Emory Robotics Club | Instructor

August 2021 - December 2021

CERTIFICATIONS AND SKILLS

Programming Proficiency in Java, Python, R, C, C++, C, ROBOTC, Lua, SQL, Assembly, Unix OS, MATLAB, PERL, OPENCV, LaTeX

Leadership (Emory IGNITE), Tutor.com Tutoring Certification, Microsoft Office