

Muhammad Oshean Lehrmann

(760) 815-4519

osheanman@berkeley.edu

<https://osheanman.github.io/>

Emerging professional with proficiency in biological lab research technique and computer science design.

EXPERIENCE

-
- | | | |
|---|--|------------------|
| Mote Marine Laboratory and Aquarium
Sarasota, FL | Undergraduate Research Intern | 06/2021-08/2021 |
| <ul style="list-style-type: none">• Worked with coral disease data using R in order to model the impacts of diseases such as Stony coral tissue loss disease, monitor the health of corals, and examine the efficacy of disease treatments.• Designed a corallivorous snail prey preference experiment using flumes of water to deliver chemical cues to the snail species <i>Coralliophila abbreviata</i> to determine if it was more likely to follow the flow towards the coral species of <i>Acropora cervicornis</i>, <i>Montipora capricornis</i>, or <i>Montastraea cavernosa</i> and presented my findings.• Aquatic lab maintenance involved coral husbandry and water quality testing• Learned protocols for DNA extractions, PCR, gel electrophoresis | | |
| Atlas SCST
San Diego, CA | Office Assistant / Assistant Geophysicist | 05/2017-01/2021 |
| <ul style="list-style-type: none">• Sanitized environments as part of COVID-19 response, recycled scrap metal, and assisted as a geophysical surveyor.• Managed incorporation of the database of client info into a new database. | | |
| UC Berkeley, Blackman Lab
Berkeley, CA | Undergraduate Volunteer Assistant | 05/2019- 08/2019 |
| <ul style="list-style-type: none">• Responsible for the preparing, germinating, and planting of sunflower samples, as well as the setting up and monitoring of data collecting equipment, that were used in an experiment examining sunflower circadian rhythm and heliotropism. | | |
| Moore's Cancer Center
La Jolla, CA | Call Pool Volunteer | 09/2016-06/2017 |
| <ul style="list-style-type: none">• Assisted medical staff with patient relations, and guiding patients through the facilities to their appointments. | | |

PROFICIENCIES

Computer Science: Python, Java, C, SQL, R, Ruby on Rails
Biology: PCR, Cell Culture, Organism Handling, Seed Germination, Gel Electrophoresis

EDUCATION

Bachelor of Arts in Molecular & Cell Biology and Computer Science MCB Focus: Genetics, Genomics, and Development	Start: Aug 2017	University of California, Berkeley Grad.: May 2022
Relevant Coursework		
Computer Science: Software Design, Algorithm Design, Computer Security, Data Structures, AI Development, Database Management, Computational Biology, Software Engineering		
Biology: Biochemistry, Biochemical Adaptation, Cell Biology, Chemistry, Genetics, Molecular Biology, Organic Chemistry		

PROJECTS

-
- Actionmap: Skills Used: Ruby on Rails, Agile Development, Git, Test Architecture**
- Actionmap is a SaaS app that provides users with a politically neutral way to see the representatives that represent an area. With a group of students, we fixed bugs in the existing codebase, integrated the Google Civic Information API and login support for Google and GitHub accounts, and added a user entry system for sharing relevant news articles and ratings for representatives.
- End-to-end Encrypted File Sharing Service: Skills Used: Go, Encryption Schemes**
- Designed and implemented a system in Go for storing files on insecure public servers, in such a fashion that users could have a guarantee that the files they were storing were secure from adversaries and that they would not try and decrypt files that had been tampered with, using multiple layers of different encryption schemes at every step.
- Pacman AI: Skills Used: Python, Search Algorithms, Machine Learning**
- Given problems for Pacman to solve, we coded an agent that could navigate mazes with characteristics such as complex mazes, adversarial agents, and limited maze info, using various search and machine learning algorithms.
- Vocal Recognition Controlled Car: Skills Used: Circuit Design, Linear Algebra**
- Designed a circuit that could provide correct voltages and signals to both the motors and the computer of a car, identified the system variables that made the car controllable, and used linear algebra to classify a collected dataset of control phrases that enabled the computer of the car to move the motors in response to hearing the phrases.