RIGEL NALLAS SISON

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EDUCATION

University of California, Berkeley, Berkeley, CA

B.A. Integrative Biology & Minor in Data Science

- > Third year; expected graduation date: May 2021
- > Relevant Coursework: Introduction to Cell Structure and Function, Molecular and Organismal Genetics (+ lab); General Genetics, Infectious Disease Dynamics, Organic Chemistry (+ lab); Principles and Techniques of Data Science; Structure and Interpretation of Computer Programs

WORK & EXPERIENCE

Bioinformatics Research Intern, with Renos Savva at Birkbeck University of London

- > Wrote heuristics-based Python script to search for potential uracil-glycosylase inhibitor (UGI) proteins among viral genome databases
- located several potential UGI sequences among the myoviridae family of bacteriophages
- Utilized UCSF Chimera to identify structural patterns among known UGI proteins

Undergraduate Research Assistant, Berkeley Evolab

- > Structurally identified hundreds of insect specimens from Hawaiian leaf litter samples
- Classified listed samples by size and structural differences for later DNA analysis
- Participate in weekly lab meetings discussing relevant scientific literature and ongoing research projects within the lab

Creative Director, Pilipinx Association of Scientists, Architects, and Engineers

- ➤ Planned and executed educational programs for the Bay Area Science Fair, Engineering 4 Kids event, and the Filipinx-Americans in STEAM Conference 2018
- > Direct and facilitate weekly intern meetings concerning professional and academic development
- Utilize Adobe Photoshop and Illustrator to design relevant graphics for advertising purposes
- > Increase exposure for the organization through Facebook events, tabling, and fundraisers

General Volunteer, Exploratorium in San Francisco

- Maintain working condition and cleanliness of museum exhibits with regards to creating an orderly and well-kept environment for visitors
- Direct and assist corporate and school groups with their volunteer work

PROJECTS

Protein Sequence Search Script, (in conjunction with Dr. Renos Savva of Birkbeck)

- Utilized Biopython functions to write a search script to parse through hundreds of viral genome sequences for those containing input motif
- Wrote second search script to filter through those output genomes for secondary motifs and isoelectric point

New Phylogenetic Tree of Life, (in conjunction with Dr. Sung-hou Kim of UC Berkeley)

- Revised diagrams for overall phylogenetic, eukaryotic, and prokaryotic trees for scientific paper publication
- Designed dozens of organismal vector silhouettes for use in those diagrams via Adobe Illustrator

SKILLS

- > **Software**: Adobe Photoshop, Adobe Illustrator, UCSF Chimera, Microsoft Office, and Google Suite programs
- Biology lab techniques: PCR, micropipetting, mass spectrometry
- Drawing and illustration
- Programming Languages/Modules: Python, Biopython, Pandas, Numpy, R, SQL

Aug 2017 - May 2021

FEB 2019 -PRESENT

IUNE 2019 -

August 2019

APRIL 2018 - PRESENT

JUNE 2016 PRESENT

SEPT 2017 - PRESENT

June 2019 -

August 2019

JAN 2019 -PRESENT