NHI VO

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EDUCATION

Purdue University, West Lafayette, IN　　　　　　　　　　　　　　　　Dec 2022 | GPA: 3.87/4.0
Bachelor of Science in *Genetics*, Minor in *Bioinformatics* and *Chemistry*　　　　Dean's List for 4 semesters
Relevant Coursework: Comparative Genomics, Computational Genomics, Practical Biocomputing, Bioinformatics Analysis of Genome Scale Data, R for Molecular Biosciences, Protein Bioinformatics, Molecular Biotechnology

RESEARCH EXPERIENCE

Research Assistant at ***Kihara Bioinformatics Laboratory***, West Lafayette, IN　　　　Aug 2021 - May 2022
- Programmed Python and Bash scripts that manipulate large drug datasets to be used as proper inputs for molecular analysis and conversion tools
- Utilized bioinformatics softwares, such as OpenBabel, AutoDock Vina, and Pymol, to investigate interactions between ligand datasets and target receptor proteins
- Assessed drug molecules by utilizing the cheminformatics software RDKit to visualize and calculate Tanimoto similarity between pairs of compounds

Bioinformatics Research Assistant at ***Kawahara Lab - Florida Museum***, Gainesville, FL　　May 2022 - Present
- Operate an Anchored Hybrid Enrichment (AHE) pipeline designed by the lab for phylogenetic analysis of the Noctuidae (owlet moth) family
- Develop Python scripts that parse and manipulate genomic data to fix issues that arose during the pipeline

LEADERSHIP EXPERIENCE

Technology Supervisor at ***Information Technology at Purdue***, West Lafayette, IN　　　Aug 2021 - Present
- Supervise student staff to ensure proper operation and provide performance feedback
- Ensure student staff are working as scheduled and communicate effectively to resolve issues in a timely manner
- Train new staff members and provide support by regularly visiting offices across campus

WORK EXPERIENCE

Data Analyst at ***Fernandez-Juricic Lab***, West Lafayette, IN　　　　　　　　　May 2022 - Aug 2022
- Analyze oil droplet images to determine the visual capabilities of birds
- Differentiate between 5 different types of avian photoreceptors and record counts of each from brightfield and epifluorescent retinal images using the program ImageJ
- Automate the cell number data entry process by writing a bash script that parses multiple count data from ImageJ into one delimited file

PROJECTS

RNA-seq Gene Expression Analysis, West Lafayette, IN　　　　　　　　　　Sep 2021 - Dec 2021
- Processed and analyzed data from WDR77/PRMT5 RNA-seq silencing experiments to identify and visualize differentially expressed genes
- Constructed heatmaps with clustering for visualization of expression pattern of GO terms obtained from GO enrichment analysis using the web-based tool GOrilla
- Utilized the Shiny package in R to construct an interactive document that allows user input for heatmap parameters via a graphical interface

Genomic Ranges Assembly Tool, West Lafayette, IN　　　　　　　　　　　　Jan 2022 - Feb 2022
- Devised a method to parse and sort genomic data from GFF and BlastX file for ranges assembly
- Developed an Object Oriented Python script that identifies overlapping linear sequence ranges

VOLUNTEERING

Community Plarn (plasti-yarn) Crochet Project, West Lafayette, IN　　　　　　Aug 2021 - Present
- Gather plastic bags from the community, such as from student organizations, cultural centers, peers, etc. to use as materials for the project
- Repurpose used plastic bags into plarn to crocheted items, such as tote bags