# Claire Hsieh

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Github: https://github.com/RococcoCat

#### **EDUCATION**

### **Bachelor of Science - Genetics and Genomics**

Expected graduation June 2024

University of California, Davis

GPA: 3.68

Minor: Quantitative Biology, Statistics

Relevant coursework:

- Statistics
- Regression Analysis
- Data Structures
- Probability & Stochastic Processes with Applications to Biology
- Linear Algebra

- Comparative Genomics
- Genes and Gene Expression
- Theory & Practice of Bioinformatics

#### **CLUBS**

## Davis Data Science Club | Social Media Officer | Sep 2022 - Present

Design and distribute posters to promote club meetings and events

#### **RESEARCH INTERESTS**

- Analyzing and modeling gene structure and function
- Predicting and modeling the effects of drugs on gene expression

## RESEARCH EXPERIENCE

## Research Assistant | Topological Molecular Biology Lab | Apr 2022 - Present

- Utilize profile HMMs in predicting SARS COV-2 mutation probabilities by adding weights based on country
- Clean and align genomic data sets
- Grow and collect microbial cultures
- Set up and perform gel electrophoresis
- Prepare frozen samples using GP2 and image using Cryo-EM

#### Research Assistant | Korf Lab | Dec 2022 - Present

- Design python programs that utilize intron position in the prediction of gene enhancement
- Design algorithms to find motifs using discretized position weight matrices

#### **TECHNICAL SKILLS**

Programming Languages: Python (numpy, pandas, matplotlib), R, Perl, MATLAB, YASARA,

Operating System: Windows, Linux, Unix

Version Control: Git

## **RESEARCH SKILLS**

- General Laboratory
- Bacteriology
- Gel Electrophoresis

- Grid Preparation (Electron Microscopy)
- Plaque Assay

#### **COMMUNITY SERVICE**

## Priceless Pets | Jan. 2019 - Feb. 2020

Walked dogs

#### **LANGUAGES**

English: Native Language

Mandarin: Intermediate Listener, Intermediate Speaker, Beginner reading and writing

### **PROFESSIONAL TRAINING**

## US Cyber Challenge | Jul 2022

• Coursework: Memory Forensics, Network Forensics, Linux

# Scientific Computing with Python | freeCodeCamp | Mar 2022

• <a href="https://www.freecodecamp.org/certification/Claire Hsieh/scientific-computing-with-python-v7">https://www.freecodecamp.org/certification/Claire Hsieh/scientific-computing-with-python-v7</a>

# Data Analysis with Python | freeCodeCamp | Jan 2023

• <a href="https://www.freecodecamp.org/certification/Claire Hsieh/data-analysis-with-python-v7">https://www.freecodecamp.org/certification/Claire Hsieh/data-analysis-with-python-v7</a>

## **O**THER

Hobbies: Reading, Playing guitar