

Meghan Sleeper

Graduate student and aspiring bioinformatic scientist

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PROJECTS

[Msleeper1/dmr_workflow](#) — *DNA methylation analysis*

A workflow for identifying differential methylation between sample groups using next-generation sequencing data analysis.

This pipeline utilizes workflow and resource management software to improve reproducibility and ease of large scale data analysis from start to finish.

Professional development mentor — *Python learning*

Mentor for a student project focussed on learning a coding language for game development. I guided the student in learning to code and building a “choose your own adventure” game using Python.

EDUCATION / RESEARCH

California State University Chico - Chico, CA

MS - Molecular Biology / focus in Bioinformatics (Currently enrolled)
My graduate thesis research investigates differentially methylated regions (DMRs) associated with colorectal cancers through whole genome bisulfite sequencing data analysis.

Recipient of Student Award for Research and Creativity (SARC) in 2023. UC Davis affiliate access to an HPC cluster provided by Titus Brown has made this project possible.

California Polytechnic State University - San Luis Obispo, CA

B.S. - Biological Sciences (Graduated 2011)

For my senior thesis, I designed and implemented research investigating the relationship between coral coloration and photo physiological characteristics of associated *Symbiodinium sp.*

Final results were presented to an academic audience and the final report was submitted to the Indonesian Institute of Sciences (LIPI report). Mentored high school students in collection of *Symbiodinium sp.* and chlorophyll counts in a laboratory setting.

EXPERIENCE

California State University Chico, Chico, CA — TA

SPRING 2023 - CURRENT

I teach laboratory sections for biology courses including human anatomy and physiology.

PROFILE

I am a self motivated, detail oriented grad student researching DNA methylation patterns associated with colorectal cancer. I have experience with a wide variety of wet lab methodologies and data analysis techniques. I approach every project I work on with a sense of curiosity and strive to provide thoughtful analyses. I am a team player and derive pleasure from collaborative growth.

SKILLS

Next generation sequencing data analysis

Remote High Performance Computing (HPC)

Python & R

Shell/Bash scripting

Git/Github

Snakemake workflow management

Micropipetting & Aseptic techniques

DNA isolation & PCR techniques

RELEVANT COURSEWORK

Genetics

Molecular Biology

Bioinformatics

Research Statistics

Human Anatomy/Physiology