Benjamin Liu

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EDUCATION:

University of California, Berkeley

B.A. in Integrative Biology

Minor in Data Science

RESEARCH/WORK EXPERIENCE:

Field/Lab Technician: Daane Lab, University of California, Berkeley

(June 2019 – Present)

- Field collections of insect population data (sweep net and yellow sticky trap sampling) for the purpose of creating pest management protocol
- Insect species identification
- Data processing
- Establishing and maintaining colonies of various leafhopper species for the conduction of viral transmission experiments in lab
- Planting and maintaining grape vine cuttings in the greenhouse

Research assistant: Caldwell Lab, University of California, Berkeley

(September 2018 - Present)

- Ongoing project on body patterning and husbandry/rearing of Octopus chierchiae
- Continuing care for marine lab animals including various species of stomatopod and octopus
- Monitoring water conditions in marine aquarium habitats in lab
- Project on environment dependent personality plasticity of Octopus bimaculoides

Research assistant: Williams and Stillman Labs, University of California, Berkeley

(June 2018 – Present)

- Field work collecting data on population size and density of invasive Potamopyrgus antipodarum (Hydrobiidae, Mollusca) in California streams and its effects on the local ecosystem
- Data collection on environmental factors (water conditions, vegetation, etc.)
- Computer image analysis (imagej)

Independent field project on Microtus californicus runway systems in different study sites

- Measured complexity of vole trails through multiple numerical measurements
- Analyzed data by A/B test using python data table methods

WORK EXPERIENCE:

Cal Dining Employee: Foothill Dining Hall, University of California, Berkeley

(July 2017 - May 2018)

Customer Service • Dining Room Attendant • Dish Room • Line Service

Skills:

Data collection in both field and lab settings

Environmental condition monitoring

Strong record keeping skills

Programing Statistical analysis of data

Reading and interpreting scientific writing

Experienced with the Microsoft office suite

Experienced with Adobe Photoshop, Illustrator and Premier Pro

Experienced with ImageJ

Strong communication and public speaking skills

Ability to work effectively independently or in a group

Critical Thinking

Coding experience

Python • SQL • Scheme • R • Arduino

General microbiology lab bench skills

Pipetting • Bacterial colony streaking and isolation • Replica plating • PCR • Gel electrophoresis • BLAST • ExPASy • 4peaks

Analytical/synthetic chemistry lab skills

Chemical calculations • Liquid-Liquid extraction • Recrystallization • Chromatography methods Spectrophotometry • Compound identification via NMR or IR spectroscopy