

Zoie L. Zhu
zoiezhu@berkeley.edu
(805)410-2645

Education

University of California, Berkeley B.S., Chemical Engineering	<i>Expected 2021</i>
Moorpark College, Moorpark, CA	<i>2018 – 2019</i>
Westlake High School, Westlake Village, CA	<i>2014 – 2018</i>

Research Experience

Lab Affiliate *7/2019 - Present*
Lawrence Berkeley National Laboratory
Berkeley, CA

- Research in photoelectrochemical CO₂ reduction
- Development of semiconductors as light absorbers

Fellowships and Awards

Chemical Science Division Undergraduate Program *Summer 2019*
Summer Fellowship with Lawrence Berkeley National Lab and UC Berkeley

Dean's List *Fall 2018, Spring 2019*
Moorpark College

Volunteer Experience

Project Leader *8/2018 - Present*
Creek Restoration under California Proposition 68
Conejo Valley Botanic Garden
Thousand Oaks, CA

- Successfully wrote, submitted and obtained a grant through California Proposition 68 for \$15,000 to restore a ½ mile creek running through the botanic garden (Grant approval by the Santa Monica Mountains Conservancy on 3/2019, finalized by the Attorney General of California 5/2019, funding starts 6/2019)
- Propose plans to the Board of Directors on specific locations for creek bank clean up and removal of blockages. First time in 13 years work has been done on the creek
- Survey the creek employing GIS technology (arcg.is/1HLKq5)
- Measure and map dissolved oxygen levels of the creek (arcg.is/1GCLPG)
- Supervise the restoration effort by employing sustainable methods such as goat grazing and local arborists to manage brush and invasive flora (<https://arcg.is/1vDmjW>)

- Eradicate invasive crayfish population
- Plant native aquatic plants in the creek to re-establish the native ecosystem

Project Leader

4/2017 – 7/2019

GIS Mapping

Conejo Valley Botanic Garden
Thousand Oaks, CA

- Use GIS technology to map all large trees and other botanical collections. First time in the history of the garden GIS technology has been used
- Created a database of the Garden's collections that are categorized and searchable by scientific name, common name, flowering/fruit time, native origin, etc. Incorporated database into a GIS map (arcg.is/1q5vHi)
- Created and currently maintain the Garden's official Flickr site to showcase collections for public outreach (<https://www.flickr.com/photos/162842557@N06/albums>)

Founder/Project Leader (4/2016 – 8/2017)

4/2016 – 8/2017

Project ReGreen

Conejo Valley Botanic Garden
Thousand Oaks, CA

- Cultivated native, drought tolerant plants, such as rosemary and various sages that are native to coastal California in 1" to 3" pots
- Distributed the cultivated native plants to the community for free
- Acquired fundraising for the Garden

Work Experience

Tutor

7/2016 – 5/2017

Kumon Math and Reading Center
Agoura Hills, CA

- Graded papers and worked with students of all ages and levels in Math and English

Docent

6/2015 – 8/2015

Conejo Valley Botanic Garden
Thousand Oaks, CA

- Guided visitors through the garden
- Gave tours of the garden

Advanced Courses and Special Skills

- Differential Equations
- Linear Algebra
- GIS
- C++
- Java
- MatLab
- Microsoft Word, Excel, PowerPoint