Lucas M. Waldburger

lwaldburger@berkeley.edu | lucaswaldburger.me | | 415-272-1542

EDUCATION

UC BERKELEY
BA in Molecular & Cell Biology
Biochemistry Concentration
Expected May 2018 | Berkeley, CA
College of Chemistry Dean's List
MCB Honors Program

SANTA BARBARA CITY COLLEGE
Grad. May 2016 | Santa Barbara, CA
Honors Program President
Honors Certificate Recipient
President of Chemistry Club
Invited Conference Moderator and Host

COURSEWORK

Plant Biology
Animal Biology
Cell Biology
Molecular Biology
Microbial Systems Biology
General Genetics
Genetic Design Automation
Genetic Devices
Metabolic Engineering
Java Fundamentals
Object Oriented C++
MATLAB for Engineers
Organic Chemistry I & II
Biophysical Chemistry I & II
Physical Biochemistry (Graduate)
Chemical Biology
Engineering Physics I, II, & III
Multivariable Calculus
Linear Algebra
Differential Equations
Biostatistics

SKILLS

PROGRAMMING
Over 5,000 lines:
Java • C++ • Python • Matlab
Javascript • CSS • LaTeX
Over 1,000 lines:
C • PHP • HTML Maple • R
Proficient with MS Office

LANGUAGES
English: Native Proficiency
Spanish: Native Proficiency

PROJECTS

BioCAD Assignment Validator
CRISPR Assembly Tool
Python Wet Lab Curriculum
Video Lectures for Biophysical Chemistry
MATLAB Applet for Cell Biology Lab

ORGANIZATIONS

American Institute of Chemical Engineers
American Chemical Society
UCSB/Cal Triathlon Club
Cal Sailing Club

EXPERIENCE

BIOENGINEERING STUDENT COMMITTEE | UC Berkeley College of Engineering
January 2018 – Present | Berkeley, CA

BIOPHYSICAL CHEMISTRY TEACHING ASSISTANT | UC Berkeley
January 2017 – Present | Berkeley, CA

ORGANIZING COMMITTEE MEMBER | NorCal Computational Biology
January 2017 – Present | Berkeley, CA

MEDICAL ASSISTANT | Berkeley Free Clinic
May 2016 – August 2016 | Berkeley, CA

LABORATORY TECHNICIAN | Atmospheric Analysis and Consulting, Inc.
May 2015 – August 2015 | Ventura, CA

JACK KENT COOKE BRIDGES PARTICIPANT | UC Santa Barbara
June 2014 | Santa Barbara, CA

PROJECT ACCESO PARTICIPANT | CSU Channel Islands
June 2014 - July 2014| Camarillo, CA

CALCULUS TUTOR | Santa Barbara City College
May 2014 – August 2014 | Santa Barbara, CA

NOTE TAKER | Santa Barbara City College Disabled Students Program
August 2013 – May 2014 | Santa Barbara, CA

RESEARCH

DUEBER LAB | UC Berkeley Department of Bioengineering
January 2017 – Present | Berkeley, CA

- Spring 2017: Characterized a comparator device for antithetic integral feedback in budding yeast.
- Summer 2017: Optimized the comparator by testing new synthetic transcription factors. Tested Cas9 gRNA-acceptor vectors for quick design and assembly. Used the new CRISPR system to make knockout strains of a CPR in the BIA pathway. Built and tested a new plasmid backbone containing a HIS auxotrophy marker from C. glabrata that did not lead to a growth defect — unlike the previous version used in lab.
- Fall 2017: Designed, built, and tested yeast strains for optimal on-pathway flux of the BIA pathway.

LI LAB | UCSF Department of Biochemistry and Biophysics
September 2016 – January 2017 | San Francisco, CA

- Fall 2016: Measured lifespan and cellular phenotypes in single budding yeast cells using microfluidic devices. Analyzing results by applying concepts from computational biology and bioinformatics.

AWARDS

2017	Summer Research Fellow	College of Chemistry
2017	Chevron Scholarship	Chevron Corporation
2017	Zachary Cruz Memorial Scholarship	Zachary Michael Cruz Foundation
2016	Dow-MIT Access Program	MIT
2016	Student Support Services Scholarship	UC Berkeley
2016	STEM Scholarship	National Science Foundation
2016	William Olivarius Scholarship	Biological Sciences Department
2015	Dr. Ronald Shlensky Memorial Scholarship	Santa Barbara City College
2015	Adopt-A-Student Scholarship	Santa Barbara City College
2015	James Selleck Bower Scholarship	Santa Barbara City College
2014	Sarah Gregory Memorial Scholarship	Santa Barbara City College
2014	Morris and Irma Jurkowitz Award	Santa Barbara City College
2014	Laurie Converse Scholarship	Santa Barbara City College