Lucas Waldburger

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FOCUS

I hope to develop my research and technical writing skills. In particular, I am interested in systems and synthetic biology as it applies to biocircuits and dynamic systems.

EDUCATION

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

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
Frontiers in Microbial Systems Biology
Principles of Synthetic Biology
General Genetics
Microbial Genetics and Genomics
Genetic Design Automation
Metabolic Engineering
Organic Chemistry I & II
Biophysical Chemistry I & II
Chemical Biology
Engineering Physics I, II, & III
Multivariable Calculus
Linear Algebra
Differential Equations
Biostatistics

SKILLS

PROGRAMMING
Over 5000 lines:
MS Excel • Java • C++ • Python
Matlab • LaTeX
Over 1000 lines:
Javascript • Maple • R • MS Access

LANGUAGES
Fluent in Spanish
Familiar with French

PROJECTS

CRISPR Assembly Tool
Python Wet Lab Curriculum
Video Lectures for Biophysical Chemistry
Web Application for Cell Biology Lab

ORGANIZATIONS

American Chemical Society
American Institute of Chemical Engineers
Cal Running Club
Cal Sailing Club
Cal Triathlon

EXPERIENCE

BIOPHYSICAL CHEMISTRY TEACHING ASSISTANT | UC Berkeley
January 2017 – Present | Berkeley, CA
Part of a cohort of undergraduates that host weekly review sessions to supplement the lecture material in Biophysical Chemistry (MCB C100A/CHEM C130).

MEDICAL ASSISTANT | Berkeley Free Clinic
May 2016 – August 2016 | Berkeley, CA
Completed microscopy on patient samples to determine white blood cell content. Performed and interpreted Gram Stains. Interacted with patients and catalogued records

LABORATORY TECHNICIAN | Atmospheric Analysis and Consulting, Inc.
May 2015 – Aug 2015 | Ventura, CA
Prepared atmospheric sampling devices for analysis of volatile organic compounds in the San Joaquin Valley. Responsible for taking inventory of received samples and following chain of custody. Trained to interpret IR and NMR spectra as well as run GS-MS analysis.

JACK KENT COOKE BRIDGES PARTICIPANT | UC Santa Barbara
June 2014 | Santa Barbara, CA
Analyzed the transfection efficiency of DNA-lipid complexes as drug delivery vehicles using fluorescent microscopy. Collaborated with graduate students and presented findings to a panel of researchers.

PROJECT ACCESO PARTICIPANT | CSU Channel Islands
June 2014 - July 2014| Camarillo, CA
Developed a laboratory teaching protocol in enzyme kinetics for a physical chemistry course. Adapted methodology to successful techniques in literature.

CALCULUS TUTOR | Santa Barbara City College
May 2014 – August 2014 | Santa Barbara, CA
Taught calculus to financially disadvantaged and academically underrepresented students.

NOTE-TAKER | Santa Barbara City College Disabled Students Program
August 2013 – May 2014 | Santa Barbara, CA
Compiled notes and prepared study guides in calculus and psychology for disabled students.

RESEARCH

DUEBER LAB | UC Berkeley Department of Bioengineering
January 2017 – Present | Berkeley, CA
Developing strategies for designable, modular control over living cells.

EL-SAMAD LAB | UCSF Center for Systems and Synthetic Bioogy
January 2017 – Present | San Francisco, CA
Characterized and tested a biological implementation of PID control in budding yeast.

LI LAB | UCSF Center for Systems and Synthetic Biology
September 2016 – February 2017 | San Francisco, CA
Measured lifespan and cellular phenotypes in single budding yeast cells using microfluidic devices. Introduced to computational biology and bioinformatics.

AWARDS

2017	Best CRISPR Assembly Software	Department of Bioengineering
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