**Christian Li**

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**GRADUATE EDUCATION**

**Masters of Science in Biochemistry** June 2023

University of Oregon - Eugene, OR

**GPA:** 3.23

**UNDERGRADUATE EDUCATION**

Dominican University of California - CA

**Bachelors of Science in Chemistry** May 2021

**Bachelors of Science in Music** May 2021

**SCIENCE COMMUNICATION EXPERIENCE**

**RNA Society Meeting 2023 Singapore**

* Knowledge sharing/learn research methodology about microscopy techniques and RNA sequence/structure prediction methodologies
* Presented a poster on Myheart Long Non-coding RNA Interactions

**RESEARCH EXPERIENCE**

University of Oregon - Eugene, OR

Graduate Research under Dr. Julia Widom

**Myheart Long Non-coding RNA Interactions with the Chromatin Remodeling Factor Brg1** June 2022-Present

* Chromatin remodeling factor Brg1 interactions with the long non-coding RNA Myheart to study possible Hypertrophic Cardiomyopathy mechanism
* Produced Brg1 protein and Myheart RNA using biochemistry techniques and E. coli
* Analysis using single-molecule microscopy techniques
* Skills used: PCR, Gibson Assembly, Protein Expression, Immobilized Metal Affinity Chromatography, Size Exclusion Chromatography, SDS Page, Native Agarose gel, Pipetting, Cell culture using shaker flasks, Bradford assay

**High Throughput RNA Sequencing Using Single-Molecule Microscopy**

* Developed simple high throughput in situ sequencing method of RNAs
* Conducted feasibility tests on well documented RNAs to inform technique choice
* Skills used: Native Agarose Gel, Single-Molecule Microscopy, Pipetting

**Skills Learned During Lab Rotations**

* NMR- 4 months experience Organic Chemistry Lab Rotation
* Bioreactor for E. coli protein expression – 6 months experience Bioengineering Lab Rotation, compared the effectiveness of using a bioreactor vs. shaker flasks for E. coli protein production

**Dominican University of California - CA**

**Undergraduate Research under Dr. Randall Hall**

**Environmentally Persistent** **Free Radicals** August 2018- May 2019

* Ab initio calculations were used to investigate the mechanism for the formation of health and chemical hazards in the environment
* Analysis of radical phenoxyl interactions with iron oxide or montmorillonite clay surface

**Carbon Sequestration**  August 2018- May 2020

* Conducted research - used chemical modeling programs, molecular simulations, and physical lab experiments to back up calculated data throughout the research process
* Marin Carbon Project - developed chemical models. Marin Carbon Project provided a starting point for how the project was structured
* Research was aimed towards determining what kinds of organic compounds would be present in water runoff and their toxicity
* The compost would be used for restoring overgrazed farmlands and a possible way to reduce atmospheric carbon dioxide levels
* Built chemical models of simple organic compounds that would be present in compost through the use of the computer program NWChem
* Used molecular dynamics simulations to determine the partitioning of compost degradation products between soil and the aquifer
* Conducted physical organic chemistry experiments to determine the composition of the water runoff from compost under the supervision of Dr. Ken Frost
* Skills used: Chemical modeling/Molecular Dynamics, UV-Vis spectroscopy

**TEACHING EXPERIENCE**

**University of Oregon - Eugene, OR**

**Chemistry Lab Teaching**

* Taught General Chemistry Lab for undergraduate students
* Lectured on experiments and supervised student experiments

**Dominican University of California - CA**

**Teaching Assistant Intern for Biochemistry** August 2020-December 2020

* Tutored biochemistry students on the lecture material, helping them understand concepts like enzyme kinetics and glycolysis and gluconeogenesis

**Independent Music Tutoring** August 2017-May 2019

* Tutored 5 violin students from Marin Youth Symphony Orchestra in classical music
* Assessed student’s strengths and weaknesses and helped them utilize their strengths to improve their performance skills
* Assessed student’s performance strengths and weaknesses at intonation of notes and rhythmic ability, intonation exercises and rhythmic exercises were given for the student to practice and improve weaknesses and strengths
* Reminded students that they can use their strengths in their music

**COMMUNITY INVOLVEMENT**

**Next Generation Scholars San Rafael, CA** January 2019 – May 2019

* Tutored high school students from disadvantaged backgrounds in general chemistry
* Tutoring consisted of homework help and clarifying hard to understand subjects for students such as reaction kinetics and acid-base dissociation

**WORK EXPERIENCE**

**Barbier Security Group**

**Security Guard** January 2018 – May 2021

* Provided security at events/venues
* Assigned guards to positions at events and concerts, ensured guards received lunch breaks, and positions were properly rotated throughout the event
* Wrote activity reports for events and concerts

**AIM Tires**

**Automotive Technician**  June 2016 – May 2017

* Serviced racecars and performed troubleshooting issues
* Set up race cars to given specifications to achieve desired grip characteristics on the racetrack

**OUTSIDE INFLUENCES AND HOBBIES**

**Restoring and Modifying Cars**

* Restored and modified classic cars with updated systems such as engines and suspension
* Troubleshoot system installations and modifications
* Design and build custom parts when needed

**Music**

* Maintained music comprehension and dexterity by playing various musical instruments
* Played and performed music with a band at various events