

Simon Austin Lee

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EDUCATION

École polytechnique fédérale de Lausanne, Switzerland | July 2024

School of Life Sciences

Masters of Science in

Life Science Engineering with a specialization in Biological Data Science

University of California, Santa Cruz (UCSC) | June 2022

Baskin School of Engineering (BSOE)

Bachelors of Science in Applied Mathematics

WORK EXPERIENCE

Institute for Quantitative and Computational Biosciences | UCLA

June 2022 - August 2022

Computational and Genomic Analyst Intern

- Developed a novel methodology using machine learning to continuously and non-invasively predict blood pressure for patients in an ICU setting with Dr. Jeffrey Chiang.
- Gained valuable experience fine-tuning data science skills (data mining, big data, data wrangling).
- Presented a seminar at UCLA.

UCSC Genomics Institute | Jonsson Lab

Sept. 2021 - June 2022

Student Researcher

- Experimented with a transformer deep learning model to predict modalities of a single cell using ATAC-seq and gene expression data.
- Collaborated with Razvan Marinescu at MIT CSAIL and Vedu Mallela at Georgia Tech

Learning Support Services | UCSC

Sept. 2021 - June 2022

Small-Group Tutor

- Instructed a small group of students in Ordinary Differential Equations.
- Devised cooperative and engaging lesson plans to stimulate learning amongst tutees.
- Established a flexible teaching environment where tutees gave feedback tailored to their needs to enhance their learning experience (midterm review, guided homework solving, mini-lessons)

Professor Darrell Long's Book Project | BSOE

Apr. 2021 - June 2022

LaTeX Editor

- Assisted Professor Long in formatting/editing all his research on Computer Storage Systems into a textbook.
- Learned the infrastructure on how to write a publication while also learning to navigate *IEEE Xplore*, and *ssrc* research databases to access vital information, simulations, and models/figures.
- Compiled and edited everything on UNIX command line, sharpening my abilities to make makefiles, topmatters, IEEE style bibliographies, & main.tex (LaTeX Packages).

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ACHIEVEMENTS & LEADERSHIP EXPERIENCE

Research Excellence Award | UCLA

August 2022

Institute for Quantitative and Computational Biosciences Summer Symposium

- Awarded the research excellence reward for giving a [stellar presentation](#) on the research conducted as an intern.
- Nominated by my mentors and a board of faculty for this award at the symposium.

Slug Mentor Network Collective | UCSC

Aug. 2021 - June 2022

Mentor

- Integrated three 1st year students by sharing my experience and opportunities/activities worth participating in (Program created to help reintegrate students after COVID-19).
- Led bi-weekly check-ins to see if students needed guidance in what classes to take, how to develop college study habits, & resources offered around campus.

Camp Kesem | UCSC

Aug. 2020 - June 2022

Treasurer & Counselor

- Camp Kesem is a college-run nonprofit organization where we fundraise to host a free two-week summer camp for children whose parents are affected by cancer.
- As treasurer, I managed chapter finances, filed company grants from local Santa Cruz Non-profit businesses, and created budgets for all the expenses needed to host a summer camp.
- As a counselor, I facilitated activities (arts and crafts/ games), discussions (cabin chats), and oversaw camper schedules to keep them moving along their age group's itineraries.

Game Developer of '[Where's My Bread](#)' | Personal Project

Summer 2021

- Programmed all the frameworks required to build a video game using *pygame: player classes, movement, enemy AI, screen scrolling, physics engine, level builders (CSV files), & leaderboards*.
- Designed all the pixel art (frame by frame) to create an animated character, enemy sprites, and all the still backgrounds using *Aesprite* software.

Deans Honors Recipient | UCSC

2020, 2021, 2022

- Academic award rewarded at the end of each quarter term to highlight students with outstanding performance placing in the top 10% based on GPA.
- Recipient of Winter 2020, Fall 2020, Winter 2021, Fall 2021, Winter 2022, Spring 2022 Deans Honor's (reflected on transcript)

SKILLS & INTERESTS

Skills: [Programming](#) (Python, Unix, Matlab), LaTeX, Big data

Interests: Healthcare, Boston Dynamics Robots, Mental Health, Cinematography