

Riley H. Easter

Berkeley, CA | US: +1 (775) 443-0445 | HK: +852 9315-6810 | rileyeaster@berkeley.edu

EDUCATION

University of California, Berkeley

B.A.

Berkeley, CA

Expected May 2027

- Double Majoring in *Applied Mathematics* and *Physics*; Minor in *Nuclear Engineering*.
- Extracurricular: Epsilon Engineers - Treasurer, American Nuclear Society - Technical Chair, CALPIRG.
- Relevant Coursework: Numerical Analysis, Statistical Thermal Physics, Multivariable Calculus, Abstract Linear Algebra, Differential Equations, Discrete Mathematics, Thermodynamics Engineering Programming.

Hong Kong Academy

International Baccalaureate Diploma + Global Citizenship Diploma

Hong Kong

[August 2019] - [May 2023]

- Activities: Student IT Team, Middle Years Physics Tutor, Rugby 7s Team, Track Team, School Jazz Quintet.
- Awards and Honors: 3x Academic Excellence Awards, Chinese Proficiency Award.

PROFESSIONAL EXPERIENCE

Berkeley SALT Group

Undergraduate Research Assistant

Berkeley, California

[June 2025] - [January 2026]

- Developed multiphysics simulations of a molten FLiBe salt loop to infer potential weaknesses in the experimental method and theorize improvements to electro-chemical sensors required for data collection.
- Edited and preprocessed large system meshes with Blender, optimized CFD solvers for OpenFOAM computing on mass flow and turbulent + multiphase flow, developed post-processing algorithms for Paraview.

Techtronic Industries

Robotics Engineer Trainee

Hong Kong & Dongguan, China

[May 2024] - [August 2024]

- Trained in MCU firmware and Android development; revamped Bluetooth backend and reliability.
- Worked on a Bluetooth protocol for a robotic lawn mower set to be in product firmware slated for release.
- Updated Android and iOS applications with new GUI, architecture, futureproofing and Bluetooth integration.
- To improve the robot's RTK reliability, travelled to mainland China meeting suppliers to install and test their parts, developing prototypes of redesigns, then gathering and analyzing data to quantify 10 improvements.

PROJECTS

Computerized Modelling of Pressurized Water Reactor

Personal Project

Berkeley, CA

[April 2025] - [August 2025]

- Developed a simulation of an AP1000 in Python to model energy flow in the system, with an error of ~11%.
- Assembled a 10 parameter monte-carlo simulation of neutron flux and heat transfer rates of nuclear fission.

Arcade-Style Claw Machine

Mechanical & Electrical Development

Berkeley, CA

[September 2024] - [December 2024]

- Worked with 5 peers on 3 iterations, achieving 70+ successful full games without error or maintenance.
- Successfully implemented a website with live prize tracking, user feedback and developmental updates.
- Completed a custom gantry system, suffering < 21 mm of slipping cumulatively over every 5 cycles.

Project OME

Biotech Start-up Concept

San Francisco, California

[November 2025] - [Current]

- Collaborated with the founder in developing a proof of concept the primary service OME plans to provide, consisting of DNA methylation data and analytics pipeline, assessed the correlation of 15 actionable lifestyle or environmental factors with discernible changes in CpG island data gathered in via user-trials.
- Lead development of customer-facing and internal software, such as a website, web data scrapers and user-data infrastructure; designed analytical algorithms for locating and assessing potential correlations.

ADDITIONAL

Technical Training: Python, C++, Mathematica MATLAB, KiCAD, OpenFOAM, Linux.