Conner Chu

310.804.0252 | connerchu@berkeley.edu | linkedin.com/in/connerchu | connerchu.com

Education

University of California, Berkeley — Berkeley, CA
Bachelor of Arts in Physics and Applied Mathematics — *Aug. 2023 – May 2027*

Experience

Lawrence Berkeley National Laboratory — Sept. 2024 – Present
Researcher in the Mu2e Group — *Berkeley, CA*

- Studying the theory behind charged-lepton flavor violating (CLFV) neutrino-less conversion of muons
- Designing calibration algorithms using ROOT for energy deposition values in the Mu2e straw tracker detector

UC Berkeley College of Chemistry — June 2024 – July 2024
Researcher in the Leone Group — *Berkeley, CA*

- Performed a cross-polarized attosecond transient absorption scan of Tellurium (Te) via high-harmonic generation
- Operated a mill, lathe, and drill press to machine structural support pieces for laser beam stabilization
- Analyzed the anisotropy of Te using Singular Value Decomposition (SVD) and the Fast Fourier Transform (FFT)

Berkeley Undergraduate Astronomy Society — Sep. 2023 – Present
Telescope Crew — *Berkeley, CA*

- Operated the Cassegrain and Newtonian telescopes during sidewalk astronomy and star party events
- Educated guests at watch parties by providing captivating explanations of celestial objects

Neurotech at Berkeley — Sept. 2023 – July 2024
Wetware Computing Division — *Berkeley, CA*

- Prototyped an automated medium replacement and imaging system to maintain neural cultures
- Cultured neurons on a microelectrode array to replicate Cortical Lab's DishBrain biological neural network

San Diego State University — Jan. 2021 – Aug. 2022
Researcher in the Kalyuzhnaya Lab — *Hybrid*

- Self-directed research on the effects of low-frequency electromagnetic fields on the growth of methanotrophs
- Conducted extensive literature review and cold-emailing for six months for professional insight and lab space
- Published in the Journal of Emerging Investigators following several rounds of revision

Relevant Coursework

Fall 2023: General Chemistry (Chem 1A), General Chemistry Lab (Chem 1AL), Multivariable Calculus (Math 53)
Spring 2024: Honors Introductory Mechanics and Relativity (Physics 5A), Introduction to Mathematical Physics (Physics 89), Accelerated Elementary Chinese for Heritage Speakers (Chinese 1X)
Fall 2024: Honors Introductory Electromagnetism, Waves, and Optics (Physics 5B), Honors Introduction to Experimental Physics I (Physics 5BL), Discrete Mathematics (Math 55)
Spring 2025: Honors Introductory Thermodynamics and Quantum Mechanics (Physics 5C), Honors Introduction to Experimental Physics II (Physics 5CL), Abstract Linear Algebra (Math 110)

Technical Skills

Life Science: Pipetting, Serial Dilution, Vacuum Filtration, Bacterial Culture, Spectrophotometry, Titration
Physical Science: Vertical Bandsaw, Horizontal Bandsaw, Drill Press, Lathe, Mill, Oscilloscope, Function Generator
Computer Science: Python (NumPy, Matplotlib, SciPy, Uproot), Java, JavaScript, HTML/CSS, ROOT, SSH

Honors & Leadership

Honors: Congressional Silver Medal Award, CyberPatriot Platinum and Gold State Qualifier, 2nd Place in California State Personal Finance Challenge (x2), AP Scholar with Distinction (x3)
Leadership: Co-President of Taft High School MUN team, Co-Founder and VP of Taft High School Amnesty International, VP of Taft High School Astronomy Club, Speaker at TEDxYouth@Timberline