Yuta Kiami

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EDUCATION

University of California, Los Angeles **June 2027**

Bioengineering B.S. & Physics B.A. | GPA: **3.95/4.00**

- **Relevant Coursework:** Thermodynamics, Mass Transfer, Circuit Design, Probability/Statistics, Machine Learning

SKILLS

Technical Skills: Python, C++, Bash, MATLAB, Deep Learning, Signal Processing, Circuit Design, SOLIDWORKS, MS Office

PROFESSIONAL EXPERIENCE

Shenshen Wang Theoretical Research Group **Los Angeles, CA**

Undergraduate Researcher May 2025 - Present

- Developing a novel mathematical framework to better quantify the persistence of plasmids in horizontal gene transfer.
- Coordinating with experimental labs to validate theoretical predictions and refine biological guarantees.

Gerard Wong Laboratory **Los Angeles, CA**

Machine Learning Intern May 2025 - Present

- Built a deep learning pipeline to classify **10,000+** bacterial images with high throughput and reproducibility.
- Designed a streamlined interface for manual labeling, enabling **600+ images/hour** for training data generation.
- Tuned model architectures to boost accuracy and training efficiency, achieving **50%+** accuracy improvements.
- Experimented with diverse datasets and processing, boosting model accuracy by **30%**.

Samueli School of Engineering **Los Angeles, CA**

Engineering Ambassador May 2025 - Present

- Leading tours and presenting engineering programs to prospective students, providing technical insights, and live Q&A.
- Supporting admissions and recruiting events as a representative of the engineering student body.

UCLA Optofluidics Systems Laboratory **Los Angeles, CA**

Undergraduate Researcher Nov 2024 - Present

- Applying laser microfabrication and automation to produce **60+** microscopic air cavities per minute in PDMS chips.
- Collaborating with graduate researchers to advance novel acoustic-microfluidic cell manipulation technology, exploring optics, acoustics, mechanics, biocompatibility, and design principles.

Fred Hutch Cancer Center **Seattle, WA**

Computational Intern Jun 2024 - Sep 2024

- Developed a method to computationally design and evaluate **1300+** protein linkers for TCR complexes using AlphaFold, EsmFold, RoseTTAFold, and OmegaFold, facilitating in vitro testing.
- Partnered with a startup to design a linker for a TCR-β structure that could increase drug delivery efficiency by **30%**.
- Organized and presented findings to Dr. David Baker, 2024 Nobel Prize winner for his work in protein design.

INDEPENDENT PROJECTS

- **TruBalance Stand:** Engineering a rigid-curve tablet stand that remains in equilibrium across a **90°** viewing angle range.
- **Epilepsy Detector:** Created a signal processing and SVM pipeline to predict seizures based on EEG data with **96%** accuracy.

LEADERSHIP & TEAM EXPERIENCE

Biomedical Engineering Society **Los Angeles, CA**

Design Team Engineer Oct 2025 - Present

- Designing a smart knee brace incorporating **5** sensors and assistive movement as part of the advanced design project team.
- Working on the development of the signal processing, hardware-software integration, and machine learning components.

CruX UCLA **Los Angeles, CA**

Neuroengineering Competition Team Engineer Oct 2025 - Present

- Developing a P300-based EEG piano playing device to submit to the annual NeurotechX competition in the spring.
- Supporting signal processing, machine-learning modeling, and mechanical design for BCI-driven prototypes.

Technical Board Mar 2025 - Present

- Advising existing BCI teams and onboarding new teams across software, signal processing, and project workflow.
- Leading **20+ workshops** and technical events for CruX members during fall and winter quarters.

Brain-Computer Interface Team – Project Lead Nov 2024 - May 2025

- Led an **8**-member team developing an EEG-based alarm clock using ML and real-time EEG decoding.
- Coordinated weekly meetings, deliverables, literature review, and hardware–software integration.