Tyler Jung

518-669-5930 | tylerjung@berkeley.edu | www.linkedin.com/in/tyler1206 | https://tylerjung1206.github.io/tyler.me/

Education

University of California, Berkeley Berkeley, CA

B.S. Electrical Engineering and Computer Science, B.A. Physics *Aug 2023 – Dec 2026*

- **Relevant Coursework:** Signals/Information Processing, Circuits and Devices, Microfabrication Technology, Microelectronic Devices and Circuits, Linear Algebra, Differential Equations and Fourier Methods, Data Structures, Computational Structures, Honors Electromagnetism and Optics, Honors Thermodynamics and Quantum Mechanics, Principles and Techniques of Data Science, Foundations of Data Science, Multivariable Calculus
- **Extracurriculars:** Theta Tau (professional co-ed engineering fraternity): Professional Development Chair, Computer Science Mentors: Junior Mentor, Big Data at Berkeley: Bootcamp Instructor

Technical Skills

Engineering Skills: PCB Design, Circuit Simulation, Embedded Systems, CAD, Electronic Measurement Equipment, Soldering, 3D Printing/Woodworking
Software Skills: MATLAB, Python, Java, C++, SQL, HTML/CSS/JavaScript, REST APIs, Git, IntelliJ
Other: Korean (native), Violin, Piano, Viola, Taekwondo, Haidong Gumdo, Speedcubing, Cooking

Experience

FastWatt May 2025 – Aug 2025

Incoming Electrical Engineering Intern *Clifton Park, NY*

BLCK UNICRN May 2024 – Aug 2024

Software Intern *Los Angeles, CA*

- Designed and implemented an interactive map cataloging potential artist/business partners using REST APIs (Google Maps, Geocoder) and web scraping technologies, enhancing BLCK UNICRN's artist network by 35%
- Developed financial models using market data and Python-based tools; advised relocation of $10,000+ in capital
- Enhanced web services via front-end software, adding video features, client intractability, and aesthetic design

University at Albany, RNA Institute, Lee Lab Jun 2022 – Dec 2022

Research Intern *Albany, NY*

- Co-authored research article: *Aging disrupts spatiotemporal regulation of germline stem cells and niche integrity*
- Analyzed RNA transcription sites through live imaging and fluorescent microscopy of the nematode c. Elegans, processing over 10000 images and identifying patterns in gene expression dynamics and Notch signaling pathways
- Executed wet-lab tasks; maintained 100+ specimens and conducted gel electrophoresis for experiment validation

Engineering Projects

Lily Pad Plunge | *CAD, Arduino, 3D Printing/Woodworking, Circuit Simulation, C++* Oct 2024 – Dec 2024

- An arcade game where users aim onto moving pads. Integrated mechanical, electrical, and software systems
- Engineered a custom circuitry system, optimizing voltage distribution to a variety of sensors, buttons, and motors
- Ensured user interface and playability with button controls, pulleys, dynamic LCDs, and a gantry. Designed precise material dimensions with CAD software and programmed game logic through Arduino microcontrollers in C++
- Supplemented project with website detailing progress and functionality. Programmed using HTML/CSS/JS

Magnetic Harmonic Oscillator | *Python, Circuit design, Electronic testing* Oct 2024 – Dec 2024

- Engineered a magnetic harmonic oscillator and coil-based system; confirmed experimental validation with theory
- Applied electromagnetic induction principles to enhance system performance. Analyzed 5,000+ data points, minimizing measurement error to under 0.1% in all trials by optimizing circuit design and error propagation.
- Analyzed experimental-theoretical discrepancies using predictive models built with Python frameworks

Personal Portfolio | *HTML, CSS, JavaScript* Dec 2024 – Jan 2025

- Built a fully responsive portfolio site with dynamic project displays, interactive elements, and mobile optimization