STANLEY C. LIU

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EDUCATION

University of Pennsylvania — **Philadelphia, PA**
M.S.E. in Electrical Engineering | *Cumulative GPA*: 3.94 — *December 2025*

University of Pennsylvania — **Philadelphia, PA**
B.S. in Bioengineering — *May 2025*

EXPERIENCE

Chorus — **Boston, MA**
Software Engineer Intern — *June 2025 – August 2025*
- C++ programming on STM32 MCU, ARM Cortex-M4, and RTOS architecture
- Developed a test application to validate chlorine dioxide gas, pressure, humidity, and temperature sensors
- Test application reduced sensor validation time from 4 hours to 11 minutes

Toka — **Philadelphia, PA**
Software Engineer Intern — *September 2023 – August 2024*
- Developed a smartwatch with accelerometer, GPS, and PPG sensors. Oscilloscope debugging
- C++ programming on STM32 MCU and ARM Cortex-M4 architecture
- SPI/I2C/GPIO communication, programming timers/interrupts, RTOS programming

Cepheid — **Sunnyvale, CA**
Engineering Intern — *May–August 2023*
- Programmed a computer-vision program in Python to detect injection molding short-shots in test cartridges
- Oversaw manufacturing and quality control in-process testing, torque, pressure decay, and vacuum tests

University of Pennsylvania: Richardson Laboratory — **Philadelphia, PA**
Research Assistant (PI: Andrew Richardson) — *March 2022–September 2023*
- Designed and tested printed circuit boards (PCB) using Altium
- Programmed python models to computationally simulate thalamocortical activity in response to stimulus

University of Southern California: Laboratory of Oncology/AIDS Research — **Los Angeles, CA**
Research Assistant (PI: Suraiya Rasheed) — *July 2018–January 2021*
- Developed microfluidic devices for HIV-1 blood sample preparation and detection.
- Integrated on-chip blood plasma separation with fluorescence detection of HIV-1 p24 antibodies

LEADERSHIP

Christian Union Martus — **Philadelphia, PA**
Treasurer and Director of Operations — *March 2023 – February 2024*
- Oversaw budget of $50,000, campus ministry of 50 students, weekly prayer meetings, and semester retreats

RESEARCH PUBLICATIONS

- Liu, S., Garg, N., Yoo, Paul., Lee, A., Rasheed, S., "A Microfluidic Device for Blood Plasma Separation and Fluorescence Detection of Biomarker using Acoustic Microstreaming", Sensors and Actuators A: Physical, vol. 317 (2021) 112482, https://doi.org/10.1016/j.sna.2020.112482

AWARDS

Wharton Innovation Fund Grant (2023) | Eagle Scout (2021) | Davidson Fellow $25,000 & Top Engineering Project in Nation (2021) | CES Young Innovators to Watch Award (2021) | Regeneron STS Top 300 Semi-Finalist (2021)