Stanford



Edric Camacho

Undergraduate, Electrical Engineering

Bio

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Edric Camacho is a transfer undergraduate student from Sierra College studying Electrical Engineering. Before Stanford and community college, Edric served in the US Navy for 6 years as a Machinist's Mate Nuclear (MMN) performing duties as an Engineering Laboratory Technician (ELT) onboard the USS Theodore Roosevelt (CVN 71). His duties during his time in the Navy ranged from sampling water chemistry of the reactor plant and secondary systems to managing all generated radioactive material onboard the ship.

After separation, Edric pursued education at Sierra College, and within a year, earned his Associate's Degree in Natural Sciences with a 4.00 GPA. Outside of coursework, Edric was an active member of the community, either tutoring students in math and chemistry to volunteering at his local library. Notable work at Sierra College include conducting a research project regarding relevant chemistry principles in the operation of nuclear reactors and organizing a nuclear reactor tour with the UC Davis TRIGA research reactor in Sacramento, CA.

During Summer 2026, Edric conducted research at Yale University under Professor Konrad Lehnert in the Department of Physics to support the quantum measurement chain utilized by his research group. More specifically, Edric developed a RF System-on-a-Chip configuration (RFSoC) to obtain S21 measurements out of the microwave superconducting circuits that the Lehnert Lab develops and tests via a combination of Python code, the Quantum Instrumentation Control Kit (QICK), and by emulation of commercial vector network analyzer equipment. This is achieved by using the RFSoC's DAC as a signal generator and 2 ADCs as a dual-channel, simultaneous dual-readout scheme. This scheme was then validated by testing frequency-dependent attenuation behavior of filters of known values and comparing these values to the experimentally obtained values from the RFSoC VNA.