

Robert Anthony Gomez II

Research Experience

Fisk University

August 2023 - May 2025

Graduate Research Assistant

Nashville, Tennessee

Description: Supported crystal growth and characterization with the Material Science and Applications Group

Pacific Northwest National Laboratory (PNNL)

September 2022 - July 2023

Post-Bachelor Research Associate

Richland, Washington

Description: Independently supported nonproliferation research in the National Security Directorate (NSD)

- Fabricated novel uranium fuels for characterization and experimentation
- Organized and conducted accountable work in glove boxes, fume hoods, and bench tops with technologist support
- Recreated a Monte Carlo method to simulate uncertainties with different isotopic ratios in Thermal Ionizing Mass Spectrometry to improve fissile material analysis

University of California, Merced

May 2020 - August 2021

Undergraduate Research Assistant

Merced, California

Description: Led the quantification of kinesin molecular motors for the Xu Lab

- Coded a program using the Fast Fourier transform to quantify gliding assays of kinesin molecular motors and demonstrate weekly progress
- Processed large amounts of data using automation to analyze the change in position from different kinesin/microtubule densities
- Created presentations to show accomplishments to a general audience

Relevant Experience

2023 IEEE NSS MIC RTSD

November 2023

Pacific Northwest National Laboratory

Vancouver, Canada

Description: Presented “Growth and Performance of Co-Doped TLYC Scintillators Crystals” as a third author

IAEA Safeguards: From Theory to Practice

March 2023

Pacific Northwest National Laboratory

Richland, Washington

Description: Completed a Mid-career course of study for the Office of International Nuclear Safeguards

Select Staffing

September 2021 – June 2022

Laboratory Technician (Contract)

Modesto, California

Description: Independently managed the analytical laboratory and supported product production

- Led the characterization of developing products during long-term projects
- Modified procedures to accommodate new techniques and materials, as well as created instructions to implement ISO lab practices and city of Modesto regulations
- Purchased material, managed inventory, and maintained records
- Analyzed products using High-Performance Liquid Chromatography and Gas Chromatography techniques for quality assurance/control
- Trained and supervised new technicians on lab practices and procedures

Education

Fisk University Master of Science in Physics	August 2023 – May 2025 Nashville, Tennessee
University of California, Merced Bachelor of Science in Physics	August 2017 – May 2021 Merced, California