John C. Tridico

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PROFESSIONAL PROFILE

- Skilled data analytics and machine learning scientist with experience in predictive modeling and data visualization.
- Experienced in working with large data sets such as experimental particle physics data, climate data, imaging data, and financial data.
- Proficient in several coding languages including Python, R, Java, and C++.
- Outstanding communication and analytical skills combined with a practical, common-sense approach.
- Exceptional research capabilities across a wide range of fields including physics, chemistry, and government.
- Proven ability to work independently and remotely as part of a focused, mission-driven team.
- Demonstrated commitment to professional ethics and laboratory safety.

EXPERIENCE

PETSMART Springfield, Virginia
Pet Care Associate June 2024-October 2024
Responsible for the care and adoption of animals such as birds, lizards and small animals. Assist and respond to customer inquiries about pet care products and services, client concerns and pet care needs. Excels in balancing multiple tasks in a fast paced, customer-oriented environment.

Nova Wild Zoo Reston, Virginia
V2 Zoo Keeper June 2024-October 2024
Managed the health and wellbeing of several animals such as Capybaras, cows, goats, owls, and peafowl. Responsible for the management and implementation of species specific diets for zoo animals. Attended animal welfare seminars in order to broaden my knowledge of humane animal care practices.

Quantum Information Material Analysis Group West Lafayette, Indiana
Research Undergraduate June 2022-September 2023
Researched and compiled background information on Quantum Field Theory as well as the physical and chemical properties of RuCl. Synthesized materials in a laboratory environment using a vacuum chamber. Preformed detailed data analysis on results gathered from extensive testing of synthesized materials.

Tau 3 Muon Research Group West Lafayette, Indiana
Research Undergraduate August 2020-May 2022
Learned to navigate and work with CMS project data utilizing the Purdue Hammer Cluster.
Developed several machine learning networks (WGAN) to assist with data analysis and compared the data sets produced with Monte Carlo CMS data. Preformed separate data analysis on Monte Carlo CMS data to test the validity of the data.

Xenon 1 Ton Research Group West Lafayette, Indiana
Research Undergraduate August 2019-May 2020
Proposed research project involving analysis of the muon veto system using data collected from the Xenon 1 Ton experiment.
Evaluated collected data utilizing python to investigate potential methods to increase the accuracy of the muon veto system.
Presented research findings at the Purdue undergraduate research conference.

EDUCATION

Applied and accepted to several Graduate programs starting Fall 2025

Purdue University, College of Science, Bachelor of Science August 2019-December 2023
Major: Physics
Minor: Economics

TASIS The American International School in England September 2015-May 2019
High School Diploma

SKILLS AND EXTRACURRICULAR

Technical: MS Word, MS Excel, MS PowerPoint, Python, R, Java, IBM SPSS, Slack, Project Management
Involvement and Interests: Purdue Society of Physics Students, Data Analysis, Government Policies, Machine Learning, Environmental protection, Animal welfare