Loreto Peter Alonzi III

School of Data Science		
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Professional Experience

- Assistant Professor of Data Science, General Faculty, University of Virginia, 2022-present
- Open Data Lab Project Manager and Data Scientist, School of Data Science, University of Virginia, 2018-2022
- Senior Research Data Scientist, Research Data Services, University Library, 2014-2018
- Postdoctoral Research Associate, University of Washington, Department of Physics, Center for Experimental Nuclear Physics and Astrophysics, 2012-2014

Education

- Ph.D. Physics, *University of Virginia*, 2012.
- M.A. Physics, *University of Virginia*, 2007.
- B.S. Physics with Honors et Magna cum Laude, *The College of William and Mary in Virginia*, 2005.

Teaching Experience

Selected Courses

- University of Virginia - DS 1001 - Foundations of Data Science - Spring 2024
- University of Virginia - DS 1001 - Foundations of Data Science - Fall 2023
- University of Virginia - DS 1001 - Foundations of Data Science - Spring 2023 (New Course, co-designed with B. Wright)
- University of Virginia - DS 4002 - Data Science Project Course - Fall 2023
- University of Virginia - DS 4002 - Data Science Project Course - Spring 2023

- University of Virginia - DS 4002 - Data Science Project Course - Fall 2022
- University of Virginia - BME 6550 - A1 Data Science - 2021
- University of Virginia - DS 6559 - Data Wrangling in Python - 2015,2016
- University of Virginia - DS 6501 - Data Wrangling in Python - 2018
- University of Virginia - DS 6999 - Independent Study - 2018
- University of Virginia - PHYS 241W - Physics Workshop - 2005

Full record see: github.com/alonzi/cv

Funded Grant Proposals as PI/Co-PI

- Building Inclusive Student-Informed Courses (2023) $9,600
  - (PI) R. Schmidt; (Co-PI): **L.P.Alonzi**
  - Inclusive Excellence award from UVA Division for Diversity, Equity, and Inclusion
- Data Science Active Learning Lab (2022) $150,000
  - (PI) B.Wright; (Co-PI): **L.P.Alonzi**
  - President and Provost's Fund for Institutionally Related Research
- Optimizing pediatric donor heart utilization using big data analytics (2022) $133,078
  - (PI) M.McCulloch; (Co-PI): **L.P.Alonzi**, M. Porter
  - Jefferon Trust
- SIWIF: Summer Institute on Wigner Imaging and Femtography (2019) $50,000
  - (PI) S.Liuti; (Co-PIs): **L.P.Alonzi**, M.Burkhardt, D.Keller, O.Pfister
  - Southeastern Universities Research Association, Inc. Grant Agreement No. C2020-FEMT-006-05 (continuation supplemental)
- SIWIF: Summer Institute on Wigner Imaging and Femtography (2019) $30,000
  - (PI) S.Liuti; (Co-PIs): **L.P.Alonzi**, M.Burkhardt, D.Keller, O.Pfister
  - Southeastern Universities Research Association, Inc. Grant Agreement No. C2020-FEMT-006-05
- Wigner Imaging (2018) $50,000
  - (PI) S.Liuti; (Co-PIs): **L.P.Alonzi**, M.Burkhardt, D.Keller, O.Pfister
  - Southeastern Universities Research Association, Inc. Grant Agreement No. C2019-FEMT-002-04

Selected Publications

Journal Articles

- M.A.McCulloch, **L. P. Alonzi**, S. C. White, F. Haregu, and M. D. Porter. "Pediatric Donor Heart Acceptance Practices in the United States: What Is Really Being Considered?" Pediatric Transplantation 28, no. 1 (November 2023). https://doi.org/10.1111/petr.14649.
- B. Abi, et al. "Measurement of the Positive Muon Anomalous Magnetic Moment to 0.46 ppm" (Muon $g-2$ Collaboration) Phys. Rev. Lett. 126, 141801 (2021)
- J. Grigsby, et al. "Deep learning analysis of deeply virtual exclusive photoproduction" Phys. Rev. D 104, 016001 (2021)
- D. Blyth, et al. "First Observation of P-odd γ Asymmetry in Polarized Neutron Capture on Hydrogen" (NPDGamma Collaboration) Phys. Rev. Lett. 121, 242002 (2018)
- D. Počanić, et al. "PEN: a low energy test of lepton universality", *PoS HQL* 2016 (2017) 042
- **L.P.Alonzi**, et al. "The calorimeter system of the new muon $g-2$ experiment at Fermilab", *Nucl.Instrum.Meth. A* 824 (2016) 718-720
- Muon $g-2$ collaboration, "The Measurement of the Anomalous Magnetic Moment of the Muon at Fermilab", *J.Phys.Chem.Ref.Data* 44 (2015) no.3, 031211
- A.T. Fienberg, et al. "Studies of an array of PbF2 Cherenkov crystals with large-area SiPM readout", *Nucl.Instrum.Meth. A* 783 12-21 (2015)

Presentations

Invited Talks

- "Introduction to R", DAACS Open Academy, Fall 2021
- "What Entropy and Impendance Mean in Data Science", Jefferson Lab AI Lunch Series, November 2020
- "Machine Learning for global fitting of CFF from sparse data", Data Science Roadmap to compton form factors of quarks and gluons, Center for Nuclear Femtography, September 2020.
- "Data Science and Femtography", CNF2019 Symposium, SURA Headquarters, August 2019.
- "Intro to Data Science", CSInstitute, July 2019.

- "The New Muon g-2 Experiment: E989 Status and Progress Update", SESAPS 81st annual meeting, November 2014.
- "Using the Library to Advance Scientific Data Practices", University of Virginia, July 2014.
- L.P. Alonzi for the PEN Collaboration, "Precision Measurements of Rare Pion Decay Channels", University of Washington, CENPA, March 2012.

Research Experience

- Research Associate, Professor David Hertzog (*UW*), June 2012-September 2014.
    - The New Muon g-2 Collaboration: E989
- Research Assistant, Professor Dinko Počanić (*UVa*), June 2007-May 2012.
    - The NPDγ Collaboration
    - The PEN Collaboration
    - The Nab Collaboration
- Honors Thesis, Professor William Kossler (*W&M*), 2004-2005.

Committee Service

- 2023 Innovations in Pedagogy Summit, CTE, Charlottesville VA
- Academic Committee, UVADS, Charlotteville VA
- Annual Meeting Program Committee, ADSA, Ann Arbor MI
- Undergraduate Committee, UVADS, Charlotteville VA

Honors and Awards

- University of Virginia Society of Fellows, Junior Fellow, 2010.
- Eagle Scout, BSA NEIC Troop 5, 1999.

Updated: February 9, 2024