ASHIA LIVAUDAIS

Fermi National Accelerator Laboratory
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EDUCATION AND TRAINING

University of Alabama *Aug 2017 - Dec 2020*
Bachelors of Science - Physics, Computer Science, Biology *Tuscaloosa, AL*

University of Alabama *Dec 2020 - Jan 2022*
Master's of Science - Physics *Tuscaloosa, AL*

Recurse Center, f.k.a Hacker School *Summer 2021*
Educational programming retreat focused on interdisciplinary computation *Remote*

Brookhaven C2QA Quantum Summer School *Summer 2021*
Summer school with a hands-on approach to quantum computing paradigms *Remote*

STAQ Institute Quantum Summer School *2019 - 2021*
Program on quantum technology for graduate (and selected undergraduate) students *Remote*

EXPERIENCE

Fermi National Accelerator Laboratory *2021 - Present*
AI Research Associate *Batavia, IL*

Mercury Data Science *2021*
ML / Data Engineer *Houston, TX*

Smithsonian, Environmental Research Center *2019- 2021*
ML / Data Engineer *Edgewater, MD*

NYU Center for Data Science *2020 - 2021*
Research Intern *New York City, NY*

National Energy Research Scientific Computing *2020- 2021*
Computational Physics Research Intern *Berkeley, CA*

PUBLICATIONS

A. Ćiprijanović, **A. Lewis**, K. Pedro, S. Madireddy, B. Nord, G. N. Perdue, S. M. Wild: DeepAstroUDA: Semi-Supervised Universal Domain Adaptation for Cross-Survey Galaxy Morphology Classification and Anomaly Detection. Machine Learning Science and Technology **(MLST)** 2023.

A. Ćiprijanović, **A. Lewis**, K. Pedro, S. Madireddy, B. Nord, G. N. Perdue, S. M. Wild: Semi-Supervised Domain Adaptation for Cross-Survey Galaxy Morphology Classification and Anomaly Detection. Machine Learning and the Physical Sciences - Workshop at the 36th conference on Neural Information Processing Systems **(NeurIPS)** 2022.

A. Lewis, M. Voetberg, B. Nord, C. Jones, R. Hložek, A. Ciprijanovic, G. Perdue: DeepBench: A library for simulating benchmark datasets for scientific analysis. International Conference on Machine Learning Workshop on Machine Learning for Astrophysics **(ICML ML4Physics)** 2022.

E. Sizikova, X. Cao, **A. Lewis**, K. Moise, M. Coffee: Improving Computed Tomography (CT) Reconstruction via 3D Shape Induction. Machine Learning for Health Symposium **(ML4H)** 2022.

A. Lewis, E. Mahmoodi, Y. Zhou, M. Coffee, E. Sizikova: Improving Tuberculosis (TB) Prediction using Synthetically Generated Computed Tomography (CT) Images. International Conference on Computer Vision Workshop on Computer Vision for Automated Medical Diagnosis **(ICCV CVAMD)** 2021.

B. Nepal , ..., **A. Lewis**, et al: Field Induced Uniaxial Anisotropy in Ferromagnetic Thin Films. Magnetism and Magnetic Materials Conference 2020.

PRE-PRINTS AND MANUSCRIPTS IN PROGRESS

A. Livaudais, E. Blackwell: Improving Multi-Task Generalization via Meta-Learning. 2023

INVITED TALKS

June 2022: DeepBench: A simulation library for cosmology focused dataset generation, New Perspectives

November 2021: Using Partially Supervised Learning for Image Processing Applications to Medical Imaging, Capital One

AWARDS AND HONORS

Vulcan Honors Scholarship *2017*
Full-ride scholarship offered by UA to the most distinguished incoming freshman.

GHC Student Scholarship *2021*
Scholarship offered to distinguished early-career women in computing.