Daniel **Kerrigan**

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Education

Northeastern University *Boston, MA*

Ph.D. in Computer Science *Jan. 2022 - Present*

- Advisor: Associate Professor Enrico Bertini

New York University *Brooklyn, NY*

Master of Science in Computer Science - Tandon School of Engineering *Sep. 2019 - Jan. 2022*

- I was enrolled in the Ph.D. program at NYU and then transferred after receiving my M.S. to follow my advisor.

University of Notre Dame *Notre Dame, IN*

Bachelor of Science in Computer Science *Sep. 2014 - May 2018*

Experience

Capital One *New York, NY*

Applied Research Intern *June - Aug. 2022, 2023, and 2024*

- 2024: Developed SAEfarer, a visual analytics tool for exploring sparse autoencoders.
- 2023: Built Monomoy, a system for enabling domain experts to familiarize themselves with and identify unintuitive behavior in ML models.
- 2022: Created PDPilot, an application for efficiently analyzing the behavior of ML models through partial dependence plots.

Amazon Robotics *Westborough, MA*

Software Development Engineer *July 2018 - Aug. 2019*

- Contributed to building an internal Android application and supporting services used to manage robotic warehouses.
- Led a re-architecture of a back end service to migrate off of an external dependency and to expand capabilities.

Publications

G. Blasilli, D. Kerrigan, E. Bertini, and G. Santucci. 2024. "Towards a Visual Perception-Based Analysis of Clustering Quality Metrics". *Visualization in Data Science (VDS at IEEE VIS)*.

N. Post, C. Zheng, D. Kerrigan, E. Bertini, and M. Tory. 2024. "Measuring wake deflection from SCADA data during wake steering using machine learning". *Journal of Physics: Conference Series*. DOI: 10.1088/1742-6596/2767/4/042031

D. Kerrigan and E. Bertini. 2023. "SliceLens: Guided Exploration of Machine Learning Datasets". *In Proceedings of the Workshop on Human-In-the-Loop Data Analytics (HILDA '23)*. DOI: 10.1145/3597465.3605217

D. Kerrigan, J. Hullman, and E. Bertini. 2021. "A Survey of Domain Knowledge Elicitation in Applied Machine Learning". *Multimodal Technologies and Interaction* 5, no. 12: 73. DOI: 10.3390/mti5120073

Teaching

Information Visualization

- Teaching assistant for Information Visualization (NYU Spring 2020, Fall 2020, Spring 2021, Summer 2021, Fall 2021, NEU Spring 2023).
- Developed Observable notebooks to teach D3 concepts, created assignments, ran in class exercises, and held office hours.

Data Visualization for Machine Learning

- Teaching assistant for Data Visualization for Machine Learning (NEU Fall 2022).
- Created Jupyter notebooks to teach ML explainability concepts.

Skills

Languages Proficient in Python and JavaScript. Past experience with Java and C.

Technologies D3.js, Svelte, Observable, and Jupyter.