Keith Harrigian

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Education

Aug. 2019 – Present **Johns Hopkins University** MSE, PhD, Computer Science. GPA: 4.0/4.0

Sept. 2013 – May 2017 **Northeastern University** BS, Mathematics. Minors in Physics and Music. GPA: 3.9/4.0

Academic Research

Aug. 2019 – Present **Center for Language and Speech Processing** *Graduate Research Assistant | P.I. Mark Dredze*
- Develop health-oriented machine learning models that are robust across multiple environments (e.g., data platform, demographic composition, hospital system)

Aug. 2014 – Aug. 2019 **Action Lab** *Research Assistant | P.I. Dagmar Sternad*
- Engineered a new algorithm using Hidden Markov Models to precisely detect initiation of finger taps in noisy strain gauge time series data

Industry Experience

Mar. 2021 – Present **Unforged** *Data Science and Machine Learning Consultant*
- Lead specification and implementation of data science infrastructure for adolescent mental wellness platform (e.g., personalization, content moderation)

June 2023 – Aug. 2023 **Netflix** *Graduate Machine Learning Intern (Content Demand Modeling)*
- Investigated whether audio-visual representations of long-form multimedia content (i.e., movies, television series) can be used to better forecast audience size

June 2017 – June 2019 **Warner Media** *Senior Quantitative Analyst*
- Built an interactive tool to extract book titles mentioned on Reddit, scrape metadata from an online reading database, and visualize demographic-level trends

July 2016 – Dec. 2016 **True Fit** *Scientist Co-op*
- Designed a robust anomaly detection system to capture fraudulent retail transactions, reducing noise by 10% in recommendation engine training data

Selected Publications

Harrigian, K., et al. "Characterization of Stigmatizing Language in Medical Records." *In Proceedings of the 61st Meeting of the Association of Computational Linguistics (ACL)*. 2023.

Harrigian, K. & Dredze, M. "The Problem of Semantic Shift in Longitudinal Monitoring of Social Media." *In Proceedings of the 14th ACM Web Science Conference*. 2022.

Harrigian, K., Aguirre, C., & Dredze, M. "Do Models of Mental Health Based on Social Media Generalize?" *In Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP): Findings*. 2020.

Harrigian, K. "Geocoding Without Geotags: A Text-based Approach for reddit." *In Proceedings of the 4th Workshop on Noisy User-generated Text (EMNLP)*. 2018.

Selected Honors and Awards

Oct. 2016 *Rhodes Scholar Nominee | Marshall Fellowship Finalist*
Nominated by faculty for outstanding academic merit and ambassadorial ability

Apr. 2016 *Outstanding Student Research Winner (Computer and Information Sciences)*
Best undergraduate poster in Computer and Information Science at Northeastern RISE 2016

Technical Skills

Programming Languages Python, Bash, SQL, R, Stan, MATLAB, C

Computing Libraries pandas, NumPy, SciPy, Matplotlib, PyTorch, scikit-learn, Gensim, tomotopy, NLTK