

COLE WHITTINGTON

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Durham, NC

EDUCATION

University of Virginia | Charlottesville, VA
Master of Science in Data Science | August 2026
Relevant Coursework: Machine Learning, Algorithms, Probability & Statistics

Boston University, Kilachand Honors College | GPA 3.84, Dean's List, Harold C. Case Scholarship Recipient | Boston, MA
Bachelor of Science in Data Science | May 2025
Relevant Coursework: Engineering for Big Data, Deep Learning

PROFESSIONAL EXPERIENCE

Boston University, Questrom School of Business | *Teaching Assistant* | Boston, MA | January 2024-May 2025

- Course: Business Decision-Making with Data, Professor: Huseyin Karaca
- Mentored and supported 120+ students through weekly one-on-one and group sessions, fostering a collaborative learning environment and aiding in their academic and professional development
- Collaborating with faculty to redesign course content and assignments to reflect advancements in AI tools like ChatGPT, ensuring students develop relevant, future-ready data skills for business decision-making

Strategic Evaluations Inc. | *Summer Data Science Intern* | Durham, NC | May 2024-August 2024

- Fine-tuned a Hugging Face model for sentiment analysis on exit interview data and presented results in Power BI, enabling the client to present the findings at the 2024 Biomedical Research Training Conference
- Developed a web scraper to extract grant data from the National Science Foundation, reducing research time by 90%
- Created a data pipeline to preprocess survey data, decreasing data cleaning time from 8 hours to 30 minutes
- Used Statistical Programming for the Social Sciences (SPSS) by importing and cleaning data sets collected through web-based platforms such as SurveyMonkey and Qualtrics

University of Virginia, School of Data Science | *Data Justice Fellow* | Charlottesville, VA | June-July 2022, May-August 2023

- Analyzed the historical impact of racial covenants and their enduring consequences on housing equity using ArcGIS (July 2023)
- Collected data from the City of Charlottesville property records to store in a database (July 2023)
- Provided Python visualizations that calculated actionable results of nonprofits in the area (July 2022)
- Observed patterns of municipality investment to ensure they aligned with priorities set by the municipality (July 2022)

LEADERSHIP

Boston Political Review | *Co-Editor-in-Chief* | Boston, MA | September 2021-May 2025

- Manage senior and associate editors, publish articles on the website, and lead club meetings

PROJECTS

End-to-End Streaming & Predictive Analytics Pipeline (Azure Data Factory, Synapse Analytics, Event Hubs) | March 2025

- Ingested weather and pollution data from the OpenWeather API into Azure Data Lake using Azure Data Factory, implementing a medallion architecture
- Designed a real-time streaming pipeline with Azure Event Hubs, Functions, and Synapse Analytics to enable live data processing and visualization
- Trained and deployed a predictive model in Azure Machine Learning on historical batch data to generate real-time forecasts on incoming streams

Sentiment Analysis of Donald Trump's Tweets During Key Political Events (Keras, HuggingFace, RoBERTa) | December 2024

- Built and evaluated sentiment classifiers using a pre-trained RoBERTa model and a self-trained LSTM neural network, manually labeling 500 tweets to benchmark model performance (RoBERTa achieved 91% accuracy vs. LSTM's 72%)
- Conducted large-scale sentiment analysis on 55,000+ tweets, uncovering key patterns in engagement across political periods and events (e.g., January 6th, COVID-19), showing that negative sentiment drove higher engagement
- Applied advanced NLP preprocessing techniques and tuned hyperparameters with dropout and early stopping to mitigate LSTM overfitting, using Sentiment140 as a proxy training set for transfer learning

SKILLS

Software/Tools: Microsoft Azure, Docker, AWS, DuckDB, Prefect, SPSS, Git/GitHub, MS Office Suite, Qualtrics, Google BigQuery
Programming/Query Languages: Python (e.g. keras, pandas, numpy, scikit-learn, matplotlib, seaborn), R, Rust, SQL
Visualization Tools: Power BI, Tableau, ArcGIS, Looker Studio