Sean Hulseman, MS DS (Dec. 2025)

Norwood, MA · seanhulseman.github.io · sean.hulseman@tufts.edu · seanhulseman@gmail.com

Data scientist and educator with a background in philosophy, bringing rigorous analytical thinking, ethical reasoning, and a strong ability to communicate complex ideas clearly. Five years of experience teaching physics, mathematics, and computer science inform a disciplined, methodical approach to data analysis and model development. While completing the final semester of a Master's degree in Data Science at Tufts University, worked with retrieval-augmented generation systems at AnswerMyQ, contributing to the development of data platform APIs.

WORK EXPERIENCE

AnswerMyQ, Data Scientist/Engineer   Oct 2025 - Present
- Developed the query API for the AMQ data platform, enabling secure, role-aware retrieval-augmented generation (RAG) by filtering tenant-scoped vector datastores using Google Cloud Vertex AI Vector Search.
- Designed and implemented an initial automated metadata verification process to flag potential content–metadata mismatches for human review prior to ingestion into tenant Google Cloud Storage buckets and vector datastores.
- Built and validated proof-of-concept role-based filtering logic using repeatable tests and edge-case evaluations, later informing platform-level RAG implementations.

NORWOOD HIGH SCHOOL, Paraprofessional   Aug 2025 - Present
- Supporting students with IEP/504 accommodations in math classrooms. Collaborating with lead teachers on lesson planning, appropriate student accommodations, behavior management, and teaching strategies.

TUFTS UNIVERSITY, Course Assistant   Jan 2025 - May 2025
- Instructed graduate students during regular office hours on Zoom. Fielded student questions, graded homework and projects, and created or modified assignments alongside the lecturer.

CANTON HIGH SCHOOL, Teacher   Dec 2018 - July 2023
- Taught Physics, Calculus, Algebra 1 and 2, Robotics, and Computer Science.
- Implemented a project-based computer science principles curriculum (PLTW). Successfully petitioned/attained funding to purchase a cart of laptops dedicated to computer science and engineering.
- Served as advisor to the Science National Honor Society for three years.

PRIVATE TUTORING, Greater Boston, MA   2019 - 2023
- Provided private tutoring services for math, science, SAT/ACT prep, and executive function coaching.
- Daily scheduling, invoicing, and reports for sessions.
- Worked for Lexington Tutoring, LLC from 2019-2021. Created Greater Boston Tutors, LLC in 2021 which I operated through 2023.

Projects

Radio Landscape, Tufts University | Data Science Capstone   Jan 2025 - Dec 2025
- Built a data pipeline to collect, process, and analyze FCC "Issues & Programs" filings for FM radio stations.
- Scraped and processed ~900 unstructured PDFs (10,000+ pages) spanning 98 stations and multiple reporting years, extracting structured "issues" (dates, times, durations, program titles, narratives)
- Annotated training data and fine-tuned a custom document field extraction model, enabling reliable extraction from highly variable regulatory filings.
- Integrated extracted "issues" with FCC station metadata (location, power, licensee, etc.) and precinct-level election shapefiles to support geospatial and temporal aggregation.
- Applied topic modeling (BERTopic) and keyword analysis (TF-IDF) to identify patterns in broadcast issues related to local and national events during the 2024 election cycle.

Sean Hulseman

SKILLS

Programming Languages:
 Python, SQL, R

Data Science & Machine Learning:
 Data cleaning and preprocessing, exploratory data analysis (EDA), statistical modeling, natural language processing (NLP), topic modeling, document understanding

Python Libraries & Frameworks:
 Pandas, NumPy, scikit-learn, Matplotlib, NLTK, TensorFlow

Cloud & Data Platforms:
 Google Cloud Platform (GCP), BigQuery, Vertex AI (Vector Search, RAG workflows), Cloud Run, Cloud Functions

Data Engineering & Processing:
 Apache Spark, Hadoop, API development, batch data pipelines, unstructured document processing (PDFs)

Development Tools & Environment:
 Git, Jupyter, command-line tools, WSL

Additional Skills:
 Technical writing, research, requirements analysis, professional communication, Excel, Microsoft Office

EDUCATION

Data Science Masters, Tufts University   May 2024-Dec 2025
 Graduate Courses: **Machine Learning**, **Cyber Security**, **Artificial Intelligence**, **Reinforcement Learning**, **Big Data, Data Analytics, Probabilistic Systems Analysis**, **Statistics, and Data Science Capstone**

Data Science Bootcamp, General Assembly, Remote,   Sep 2023 - Dec 2023

B.A.- Philosophy, Minor-Physics, John Carroll University, University Heights, Ohio   Graduated May 2013

Let's Connect!

Add me on LinkedIn   Check out my portfolio

See how I have been teaching myself piano as Murphy's Law School