

EDUCATION

Tufts University | Medford, MA

September 2021 - May 2025

Bachelor of Science in Computer Science (Arts & Sciences) & Human Factors Engineering (School of Engineering)

- *Relevant Coursework:* Machine Learning, Software Engineering, Programming Languages, Machine Structure, Artificial Intelligence, Computer Vision, Behavioral Statistics, Algorithms, Data Structures, Database Systems

TECHNICAL SKILLS

Programming Languages: Python, SQL, C, C++, Java, R, Javascript, HTML, CSS

Software/Tools: Azure (Data Lake, Databricks, Synapse Analytics, Data Factory), GCP (BigQuery, Cloud Storage, Looker), AWS, PySpark, PostgreSQL, MongoDB, Flask, Node.js, Git, Jupyter Notebook, Tableau, Power BI, GA4, Excel

RELEVANT EXPERIENCE

Fidelity Investments

January 2025 – May 2025

Data Analyst | Remote

- Extracted, processed, and integrated large-scale user interaction datasets using Python and SQL to analyze behavior patterns, uncover engagement trends, and identify key gaps in data structure and consistency.
- Designed and implemented 6 automated dashboards using Google Looker, surfacing actionable insights that improved user retention by 20% and enabled faster product iteration by highlighting friction points.
- Diagnosed inefficiencies in existing data organization and developed a user-friendly tool that streamlined access to high-impact metrics, reducing ad-hoc analysis time by 50%.

Pison Technology

June 2024 – August 2024

Data Operations Intern | Boston, MA

- Developed ETL tools and automation scripts to clean, merge, and migrate complex datasets, improving integration efficiency and reporting speed by 40%, and enhancing pipeline scalability.
- Designed and implemented 10+ interactive dashboards using Google Looker to monitor key metrics, visualize experimental results, uncover insights, and support cross-functional decision-making. Utilized SQL and Python extensively to analyze large-scale datasets encompassing 100+ users and over 10,000+ test records, generating insights that contributed to a 30% reduction in feature iteration time.
- Implemented a robust tool for cleaning and merging datasets, which improved integration efficiency, reduced manual workload, and facilitated a smoother transition to BigQuery by streamlining data preparation.

Tufts University Human Computer Interaction Lab

May 2023 – August 2024

Research Assistant | Medford, MA

- Conducted EEG-based research on human cognition, analyzing neural activity from 20+ study participants to examine the relationship between strategic thinking, decision-making, and competitive gameplay.
- Designed and coordinated experimental protocols, collected biometric and behavioral data, and performed statistical analysis in R and Python, improving research throughput by 30%.
- Created 20+ visualizations to communicate experimental findings, support hypothesis testing

LEADERSHIP AND PROJECTS

ChessLytics — (www.chesslytics.xyz | github.com/edwardl903/chesslyzer)

September 2024 – Present

Founder & Creator | Remote

- Built an end-to-end chess analytics platform using a hybrid multi-cloud architecture (Azure + GCP) to analyze over 1M+ games, extracting both global trend insights and detailed user-specific performance metrics.
- Ingested monthly Lichess .pgn.zst dumps and fetched Chess.com data via REST APIs, processing large files with Azure Data Lake, Databricks, Delta Lake, and PySpark for scalable distributed computation.
- Leveraged BigQuery and Python-based ETL workflows to generate custom Year in Review reports with low-latency Flask APIs, featuring an interactive frontend and advanced filtering capabilities seamlessly.
- Scaled to 100+ active users with automated data refresh pipelines and interactive, user-friendly web-based real-time dashboards in Looker, delivering highly personalized, actionable insights on demand.

SpotiFriend

March 2025 – Present

Creator | Personal Project

- Designed and implemented a scalable, cloud-based data pipeline using Python and AWS services to analyze Spotify listening behavior across 10,000+ unique tracks collected from multiple user profiles.
- Automated the end-to-end extraction of detailed listening history using the Spotify Web API, and efficiently stored over 500MB of structured data in AWS S3 using JSONL format for seamless downstream analysis.