## **ELIJAH SANDLER**

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## **EDUCATION and ACADEMIC HONORS**

Northeastern University, Boston, MA | Khoury College of Computer Sciences

Sept 2022 - Present

Candidate for B.S. in Data Science, B.A. in Philosophy with a Concentration in Ethics 
Expected Graduation May 2026

**Honors:** GPA: 3.95/4.0 | Dean's List

**Relevant Coursework:** Algorithms & Data Structures, Database Design, Linear Algebra, Probability and

Statistics, AI Ethics, Ethics and Evolutionary Games, Technology and Human Values

**International Program:** England and the Scientific Revolutions, London, UK July 2023

**Activities:** AI and Data Ethics Working Group, Philosophy Club, Ultimate Frisbee Team

TECHNICAL SKILLS

**Languages:** Proficiency in Python | Familiarity with C++, SQL **Libraries and Tools:** Git, NumPy, Pandas, Plotly, scikit-learn, TensorFlow

**WORK EXPERIENCE** 

**Research Assistant** | Northeastern University, *Boston*, *MA* 

Sept. 2023 - Dec. 2023

- Conducted literature review for a research project on the simulation hypothesis.
- Updated project research team on extent of existing literature.
- Advised research team on feasibility and direction of project.

Machine Learning Methods Research | Northeastern University, Boston, MA

Aug. 2023 - Present

- Won PEAK award research grant from Northeastern University's Office of the Provost.
- Researched and applied novel machine learning methods for cases with high variance.
- Presenting at the 2024 Northeastern RISE (Research, Innovations, Scholarship, Entrepeneurialship) Expo.

**Ultimate Frisbee Coach** | Brookline High School, *Brookline*, *MA* 

Mar. 2023 - Present

- Coach Brookline High School Boys JV Ultimate Frisbee team.
- Responsible for running JV program, including scheduling, training, communication, and logistics.

**Soccer Referee** | United States Soccer Federation / Boston Area Youth Soccer.

Aug. 2015 - May 2021

- Served as licensed United States Soccer Federation and Boston Area Youth Soccer referee.
- Liaised for officials, players, coaches, and spectators.

## **PROJECTS**

**NBA Elo Ratings** | Python

Dec. 2023 - Present

- Implemented an Elo algorithm to calculate NBA team strengths and produce dynamic visualizations.
- Identified and analyzed discrepancies with other popular metrics of NBA team strength.
- Future features include a player rating system, user-friendly interface, and predictive analysis.

**Predator-Prey Simulation** | C++, Python

Nov. 2023 - Dec. 2023

- Used object oriented programming to illustrate dynamics between predator and prey populations.
- Stored simulation data, which was displayed via static and animated graphs.

**Evolutionary Ethics Simulation** | Python

Oct. 2023 - Dec. 2023

- Used TensorFlow to build a neural network to explore the Lewis signalling game as a model of the minimal conditions for the evolution of meaning.
- Successfully validated hypothesis and discussed significance of the findings.

Fantasy Premier League (FPL) Predictive Model | Python

Mar. 2022 - Present

- Built scripts to collect data from various sources and perform machine learning tasks including regression and linear programming with the goal of identifying good FPL assets.
- Created a new metric for FPL asset strength.
- Future features include autonomous play, improved visualizations, and user-friendly interface.

## **INTERESTS**

Outdoors: Camping, Hiking

**Sports:** Chess, Soccer, Basketball, Frisbee, Motorsports

Miscellaneous: Reading, Role-Playing Games, Simulation and Strategy Games