#### 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

Expected 2026

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

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

Statistics, AI Ethics, Technology and Human Values

#### TECHNICAL SKILLS

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

#### **WORK EXPERIENCE**

## 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 in Python.

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

Mar. 2023 - Present

- Coached Brookline High School Boys JV Ultimate Frisbee team.
- Ran JV program, including scheduling, communication, and logistics.

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

Sept. 2023 - Dec. 2023

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

**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**

# Fantasy Premier League (FPL) Predictive Model | Python

Mar. 2022 - Present

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

## **NBA Elo Ratings** | Python

Dec. 2023 - Present

- Implemented an Elo algorithm to calculate NBA team strengths and produce dynamic visualizations.
- Explored discrepancies with other popular metrics of NBA team strength.
- In progress. Future features include a player rating system.

# **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; wrote a paper based on findings.

### **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.

Interests: Camping, Chess, Soccer, Basketball, Frisbee, Hiking, Motorsports, Reading