

# GRAHAM ELLINSON

## Data Scientist

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## EXPERIENCE

### Data Scientist

#### eToro

2020 – Present    Tel Aviv, Israel

- Developed and implemented an **Artificial Neural Network Algorithm** to identify users at risk of cashing-out. Notifications are sent using **A/B testing** to validate results, achieving statistical significance.
- Conducted comprehensive market analysis using GARCH models for **volatility forecasting** and regime change detection, and performed liquidity analysis leveraging full L2 limit order book data to inform strategic trading decisions.
- Designed and optimized hedging algorithms using **Random Forest** and **LSTM RNN** machine learning models, resulting in reduced trading costs and improved risk management.
- Implemented advanced portfolio design strategies using **deep reinforcement learning**, increasing revenue while reducing computational latency.
- Led a team of five analysts during a maternity leave period, ensuring seamless project continuity, mentoring team members, coordinating tasks, and maintaining effective communication with upper management to meet critical deadlines.
- Migrated all existing processes to a new data platform (**Azure Databricks**), enhancing data processing efficiency and scalability.

### Data Analyst

#### Explorium

Apr 2019 – Aug 2019    Tel Aviv, Israel

- Enriched clients data to provide an uplift in ML predictive metrics (AUC or  $R^2$ ).
- Performed the full ETL enrichment (AWS) from inception to deployment.

### Data Analyst

#### I Know First

Oct 2018 – Apr 2019    Tel Aviv, Israel

- Extensive back-testing on different ML algorithms for portfolio management.

## EDUCATION

### MSc in Artificial Intelligence (Distinction)

#### University of Bath

2021 – 2023

Thesis: Application of Graph Theory in Bio-Informatics

### BSc in Mathematics (First Class Honours)

#### University of Northumbria Newcastle

2016 – 2020

## SKILLS

Machine Learning

Python

R

Reinforcement Learning

SQL

Matlab

Mathematica

SparkSQL

Tableau

Databricks

Deep Learning

PySpark

## VOLUNTEERING

### Mathematics Tutor

#### Action Tutoring

2018 – 2020    Newcastle, UK

### Mentor

#### ARDC (African Refugee Development Centre)

2018 – 2019    Tel Aviv, Israel

## LANGUAGES

- English (Native)
- Hebrew (Limited Working Proficiency)
- French (Conversational)

## PROJECTS

- MSc Thesis: Graph-Based Refinement of RNA-Protein Interaction Predictions: Improving Precision through Spectral Clustering
- BSc Dissertation: Advanced Regression Modelling for Machine Learning.
- Github Portfolio: [github.com/graham-blip](https://github.com/graham-blip)