Bram Silue

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Employment

Artificial Intelligence Lab Brussels — Brussels, BE
Doctoral Researcher — 2023 – Now

- Developing novel reinforcement learning algorithms with enhanced sample efficiency for multi-objective decision-making within computationally intensive stochastic models.

Education

Doctor of Philosophy (PhD) in Machine Learning — Brussels, BE
Vrije Universiteit Brussel — 2023 – Now

Master of Science (MSc) in Engineering – Computer Science — Brussels, BE
Vrije Universiteit Brussel — 2020 – 2023

- Honors: *magna cum laude*.
- Cumulative GPA: **4.0/4.0**.
- Field of study: Artificial Intelligence.

Bachelor of Science (BSc) in Engineering – Electronics & IT — Brussels, BE
Vrije Universiteit Brussel — 2016 – 2022

Publications

Efficient Bayesian Ultra-Q Learning for Multi-Agent Games — London, UK
W. Gauderis, F. Denoodt, B. Silue, P. Vanvolsem, A. Rosseau — May 2023
Adaptive and Learning Agents Workshop (ALA)

Competitions

Optiver Challenge – 1st place — Edinburgh, UK
The University of Edinburgh — Mar 2024

- Developed a trading system in Python that competes against 20 other teams. The system employs a market-making strategy and leverages sentiment analysis through machine learning to execute directional trades in response to market movements triggered by news.

Notable Projects

Algorithmic Market Maker
Skills: Python (numpy, matplotlib), SQL

- Simulated and visualized a market maker using the Avellaneda-Stoikov high-frequency trading model. This involved setting bid and ask prices while managing inventory risk. The simulations ran under dynamic market conditions using Brownian motions stored in an SQLite database.

Profile Overview

Technology:	Python, Git, Unix, LaTeX.
Languages:	English (fluent), Dutch (native), French (native), German (intermediate).
Personal Interests:	Music Production, Automotive Industry, Fitness, Horology, Investing.
Professional Interests:	Quantitative Trading, Machine Learning, Software Engineering, Research.