

Alexander Remmerie

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Education

KU Leuven University

Engineering

Major: Computer science and Electrical Engineering

Additionally enrolled in subjects of Business Engineering

Relevant Coursework:

- Statistics (Data Science, Linear Regression)
- Programming (including OOP, Numerical Analysis)
- Physics (Thermodynamics, Classical Mechanics, Electromagnetism)
- Mathematics (Linear Algebra, Vector Calculus, Differential Equations, Information Theory, Group Theory)
- Business (Micro-and Macroeconomics, Finance, Business Law, Econometrics)

Kortrijk, Belgium

2022 – 2025

RHIZO Lyceum OLV Vlaanderen (High School)

4 Years of Greek + Latin + Mathematics + Economics

2 Years of Mathematics + Science

Additionally enrolled in mathematics courses (Multivariable Calculus and Linear Algebra)

at KU Leuven during my final year of high school

Kortrijk, West-Vlaanderen

2016 – 2022

Experience

INDEPENDENT

Market Maker

Remote
2022 – Present

- Self-built full-scale trading models and infrastructure on a Decentralized Exchange (DEX)
- Conducted statistical research on Limit Order Book (LOB) market data from a DEX analyzing over 100 million datapoints including trades, index prizes, funding and order book levels
- Developed a unique high-frequency market making strategy (HFT) with a live performance Sortino ratio of 2, executing > 1000 daily trades
- Execution agent runs on three communicating AWS instances (for security, redundancy and reduced latency) in Virginia, Paris and Tokyo. It calculates orders, bundles transactions and submits them to a blockchain. Multi-signature cryptography is used for added security.
- Risk engine (Twilio integration for emergency calls) is used for live risk monitoring and control panel (self-developed GUI) is used for parameter adjusting and A/B testing strategies
- Detailed live performance and market analysis is conducted using Jupyter notebooks and Grafana dashboards

ML6

Machine Learning Intern

Ghent
2023

- 6 Week machine learning internship in leading and fast-growing AI company
- 1) Participated in the Datacomp.ai competition with Niels Rogge, testing a new data preparation framework for foundational model training and fine-tuning (Fondant). Co-wrote a paper that got accepted and presented a poster at ICCV 2023 in Paris (International Conference on Computer Vision)
- 2) NLP do-good project using OpenAI's GPT and Whisper models, delivered successful end product

Leadership & Activities

International Physics Olympiad (IPHO)

Honorable Mention

Saeby, Denmark
2021 – 2022

- “Honorable Mention” recipient at the International Physics Olympiad (IPHO) in Denmark, where I was one of only five representatives selected for the national team of Belgium after three rounds of increasingly challenging competitions. The event brought together the world's best physics students from over 80 countries for intense theory and experimental problem-solving, spanning a total of ten days.

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Flemish Physics Olympiad

Flanders
2021 – 2022

Finalist

- Finalist for the Flemish Physics Olympiad, selected for the IPHO out of more than 2000 students.
- Full 5-day preparatory lectures at the University of UGent, KU Leuven, UHasselt, KU Leuven Kortrijk, UAntwerpen
- VIP-visit SCK CEN (National Nuclear Research Centre), underground testing facilities 200+ meter underground

G-Research Quant Finance Workshop

Leuven
2023

Winner

- G-Research is a leading technology company attracting top talent based in London, they host workshops in top universities worldwide
- In a team of 3 (two other International Olympiad in Informatics (IOI) participants), we won the 1st prize for making the best algorithm for an optimal trading problem.

Boy Scouts

Kortrijk
2012 – 2023

Leader

- Currently leader of a group people with mental disabilities, I organize weekly activities
- Responsible in a team of 3 for building and maintaining our website + internal intranet (written in PHP)

Built a self-made car

Kortrijk
2020 – 2022

- Collaborated with a friend, designed, engineered and built a functioning two-seat car during covid lockdown
- Story featured in three newspapers (HLN, Nieuwsblad, KW) and national radio (NRJ)

Website Builder

Remote
2020

- Designed and developed a website for a lawyer's office, showcasing their services and expertise.
- Created and optimized content for search engine optimization (SEO)

Projects Abroad Micro-Finance

Arusha, Tanzania
Summer 2022

Volunteer

- Provided practical support to local female entrepreneurs in developing business plans, marketing strategies, and financial management skills in collaboration with a supervisor
- Conducted workshops on mathematics and women's rights to promote gender equality and empower women
- Contributed to increasing financial independence of women from disadvantaged communities in Tanzania

Wobra Lifeguard Education

West-Vlaanderen
2021 – 2022

Lifeguard at Sea

- Successfully completed an intensive year-long lifeguard education program and obtained certification.
- Holder of the International boating and yachting license

Erasmus+ Exchange Program

Ireland, Germany
2019

Student

- 3 week long exchange program with high schools in Ireland and Germany
- Theme: social inclusion and gender equality

Skills & Interests

Technical: Python (pandas, numpy, matplotlib, jupyter notebook), JavaScript (React, Typescript), R and Rstudio, PHP, Solidity (simple EVM smart contracts), PyTorch, C++, PostgreSQL
BASIC (first language I learned), HTML, CSS, MS Office, Solid Edge, Git

Interests: Sports (long distance marathon running – marathon 2021, tennis, padel, kart racing, sailing, alpine skiing, golf), Piano (diploma, achieved highest distinction (98%))

Quantitative finance, deep learning, crypto (consensus mechanisms, EVM, smart contracts, DeFi), global politics

Language: Dutch (mother tongue)

English (Cambridge C2 certified, proficient level),

French (fluent, went to French-speaking school for 1 year)