Jasper Dekoninck

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EDUCATION

PhD Student | ETH Zürich **Nov 2023 - Present**
- PhD Student at Secure, Reliable, and Intelligent Systems Lab under prof. Martin Vechev
- Working on various aspects related to LLMs/LMMs: robust evaluation, data contamination, controlled generation

MSc Data Science | ETH Zürich **Sep 2021 - Sep 2023**
- First student ever to graduate with perfect GPA (6.0 / 6.0)
- Master Thesis on Controlled Text Generation and Research Project on Quantum Circuit Synthesis published at major conferences (ICLR and ACM OOPSLA).

BSc Mathematics | KU Leuven **Sep 2018 - Sep 2021**
- Graduated Summa Cum Laude with compliments of the jury
- Part of double degree program

BSc Physics | KU Leuven **Sep 2018 - Sep 2021**
- Graduated Summa Cum Laude
- Part of double degree program

EXPERIENCE

Intern | Risk Concile **Aug 2019, Aug 2020, Aug 2021**
- Internship during all three years of my Bachelor
- Topics: portfolio optimization, volatility surface prediction, financial shock simulations

AWARDS

Willi Studer Prize for Best MSc Data Science **Oct 2024**
- 3000 CHF prize for highest-performing student in graduation class

First Place of the Red Teaming Phase US PETs Prize Challenge **May 2023**
- Leading a team to find vulnerabilities in proposed privacy enhanced technologies, winning first place and 60.000 USD.

ETH-D Scholarship **Sep 2021**
- Full scholarship (42000 CHF) for master studies at ETH Zürich

Finalist Flemish and Junior Math Olympiad **Jun 2015, Jun 2016, Jun 2017**
- Top 100 out of 11000 participating students reach the finals

Bronze Medalist European Mathematical Cup **Jun 2016**

ADDITIONAL INFORMATION

- **Languages:** English, Dutch
- **Relevant Courses (MSc):** Introduction to Mathematical Finance, Financial Economics
- **Programming Experience:** Python (most experience), JavaScript, HTML/CSS, C++
- **Strengths:** quick learning, disciplined, trustworthy

PUBLICATIONS

Synthetiq: Fast and Versatile Quantum Circuit Synthesis   **ACM OOPSLA '24**
   Anouk Paradis*, Jasper Dekoninck*, Benjamin Bichsel, Martin Vechev

Controlled Text Generation via Language Model Arithmetic   **ICLR '24**
   Jasper Dekoninck, Marc Fischer, Luca Beurer-Kellner, Martin Vechev

ConStat: Performance-Based Contamination Detection in Large Language Models   **NeurIPS '24**
   Jasper Dekoninck, Mark Niklas Müller, Martin Vechev

Evading Data Contamination Detection for Language Models is (too) Easy   **Under Review**
   Jasper Dekoninck, Mark Niklas Müller, Maximilian Baader, Marc Fischer, Martin Vechev

Polyrating: A Cost-Effective and Bias-Aware Rating System for LLM Evaluation   **Under Review**
   Jasper Dekoninck, Maximilian Baader, Martin Vechev

VOLUNTEERING WORK

President │ ETH Chess Club   **May 2023 - Present**
- The ETH Chess Club organizes weekly chess events to promote chess

Treasurer │ ETH Chess Club   **May 2022 - May 2023**
- The ETH Chess Club organizes weekly chess events to promote chess

Core Organizer │ Student Sustainability Week   **Aug 2021 - March 2022**
- The Student Sustainability Week is a week with over 50 events on sustainability and more than 1500 participants.

President │ Overarching Education Council   **July 2020 - July 2021**
- The Overarching Education Council represents more than 3500 students of the Faculty of Science of KU Leuven in various governing bodies.

Board Member │ Overarching Education Council   **July 2019 - July 2020**
- The Overarching Education Council represents more than 3500 students of the Faculty of Science of KU Leuven in various governing bodies.

Freshmen Representative and Public Relations │ Wina   **July 2019 - July 2020**
- Wina is the student organization for math, physics and computer science at KU Leuven.

Student Representative │ Educational Committee Mathematics   **Sep 2018 - July 2021**
- The educational committee of mathematics governs all aspects of the Bachelor of Mathematics at KU Leuven.