ALEXANDRA KRASNOVA

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SUMMARY

Master's student in Financial Engineering at EPFL with a solid skill set encompassing mathematics, programming, and strong quantitative problem-solving capabilities. Eager to apply acquired knowledge to real-world challenges through internships in finance. Passionate about the intersection of financial markets and technology.

SKILLS

Programming Languages: C++, Python, R, SQL, MATLAB, Wolfram Mathematica, VBA;
Software and Technologies: Linux, Git, CUDA, PowerBI, LaTeX, Excel;
Languages: English (fluent), German (basic), French (basic), Russian (native);

EDUCATION

École Polytechnique Fédérale de Lausanne (EPFL)   **Sept. 2023 – July 2025**
Master of Science in Financial Engineering   *Lausanne, Switzerland*
- Relevant courses: Econometrics, Stochastic Calculus, Corporate Finance, Derivatives, Investments, Accounting.

Bauman Moscow State Technical University (BMSTU)   **Sept. 2019 – June 2023**
Bachelor of Science in Applied Mathematics   *Moscow, Russia*
- Average Grade: **3.84/4.0**; **magna cum laude**;
- Relevant courses: Probability and Statistics, Stochastic Processes, Numerical Analysis, Optimization.

EXPERIENCE

Business Analyst Intern   **Nov. 2021 – May 2023**
National Clearing Center, MOEX Group   *Moscow, Russia*
- Improved efficiency in Python prototype for **currency options** as measured by reduced processing time;
- Executed data visualizations using **Oracle SQL** and **PowerBI**, accomplishing impactful presentations (20+ in total);
- Enhanced the risk prediction model for standardized derivatives by improving accuracy and reliability through backtesting and refinement;
- **Increased the company's income by 0.01%** by identifying the need for a strategic adjustment in penalty rate for unscrupulous clearing participants.

Research Assistant   **Sept. 2021 – May 2023**
Bauman Moscow State Technical University   *Moscow, Russia*
- Utilized **Python** and **MATLAB** to implement an algorithm for finding special kind chains in a marked complete graph and to perform Monte Carlo simulation to analyze their distribution;
- Publication: N. Mezhennaya, **A. Krasnova**, L. Makaryan. On the Distribution of the Number of Special Kind Chains in a Marked Complete Graph. Bulletin of Buryat State University. Mathematics, Informatics. 2023. №2. P. 3–13.

EXTRACURRICULAR

Member of Investment Society EPFL   **Sept. 2023 – Present**
École Polytechnique Fédérale de Lausanne   *Lausanne, Switzerland*
- Developed and implemented the Percent Volume Oscillator **algorithmic strategy** in Python, utilizing data from a Chinese company;
- Achieved an average **Sharpe ratio** of 2.57 and a **Calmar ratio** of 5.21.

TeamLead at EBEC (European BEST Engineering Competition)   **Dec. 2021**
Bauman Moscow State Technical University   *Moscow, Russia*
- Spearhead a high-performing team of 7 in the strategic development of a **financial strategy** for a Swedish company;
- Achieved **Moscow Finalist status**: secured second place among 30 teams;
- **Sole Internship Offer**: outshone 100+ participants as the only candidate to receive an offer from **Atlas Copco**.