KAROLIS SPUKAS

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Education

University of Cambridge Oct 2021 – Jun 2022

MPhil Advanced Computer Science (Distinction)

- Rank: 3/36. Prize for the best MPhil project "Trainability of Parameterized Quantum Circuits as Generative Models" supervised by Dr Steven Herbert.

The University of Edinburgh Sep 2017 – Jun 2021

BSc Computer Science (First Class)

- Undergraduate project: "Practical Quantum Algorithms for Order-Finding Problem" supervised by Dr Petros Wallden.

The University of Hong Kong Sep 2019 – Dec 2019

BEng Computer Science (Exchange Semester)

Experience

Lighthouse Financial Technologies Mar 2023 – Present

Software Engineer

- High-frequency options trading and market making (C++20).
- Strategy and execution team – working closely with option traders to develop various quoting, hitting, and hedging strategies.

Bloomberg L.P. Sep 2022 – Feb 2023

Software Engineer

- Worked on a legacy system for processing world's financial data (C++11).

Software Engineer Intern (Summers 2020, 2021)

- Used Apache Arrow and Avro to improve serialization times of a proprietary data structure (C++17).
- Developed troubleshooting tools to the financial instruments cache services (C++14, Python, TS).

JPMorgan Chase & Co. Jun 2019 - Aug 2019

Software Engineer Intern

- Big Data Engineering team member, used Apache Spark for data processing (Python), developed a Continuous Integration and Delivery pipeline (Jenkins). Adopted Agile, TDD and SOLID principles.

KAL Jul 2018 - Mar 2019

Software Engineer Intern

- Developed software prototypes for a new generation of ATMs (C#, .NET framework).

Projects/Awards

Prototype for a Category Theory-based GNN Library Apr 2022

- Developed for the Geometric Deep Learning course at Cambridge
- Acknowledgement in Graph Neural Networks are Dynamic Programmers (AJ Dudzik, P Velickovic, 2022)
- Project page: https://github.com/KaroliShp/CatGNN

Reproduction and bug fixes of a major DL theory paper Jan 2022

- Developed for the Theory of Deep Learning course at Cambridge
- Project page: https://github.com/KaroliShp/pacbayes-opt

Vilnius Lyceum Alumni (LA) Organization Scholarship Jul 2021

- Scholarship to cover part of Master's degree fees