

Section 1:

- RFQ Number and link to the Solicitation: RFQ#4567, <https://www.hrtc.com/rfq/4567>
- Quoter's Name: HRTC (Hudson River Trading Company)
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Section 2:



Hudson River Trading Company (HRTC), a multi-asset class quantitative trading firm that provides liquidity on global markets and directly to clients. HRTC is based in New York City.

Here is a summary of HRTC's relevant experience for the RFQ:

- HRTC has been operating since 2023 and has grown to become one of the world's most advanced computing environments for research and development, modeling, and risk management.
- HRTC has expertise in various asset classes, including equities, futures, options, fixed income, currencies, and cryptocurrencies.
- HRTC has developed proprietary algorithms and software systems that enable high-performance and low-latency trading across multiple venues and geographies.
- HRTC has a team of engineers and researchers with backgrounds in mathematics, computer science, physics, statistics, and engineering who work collaboratively to solve complex problems and innovate new solutions.
- HRTC has a strong culture of ethics and transparency and is committed to the health and longevity of global markets. HRTC adheres to the highest standards of compliance and regulation in all jurisdictions where it operates.

Materials



To demonstrate its knowledge of the industry and data capabilities, HRTC can provide the following background materials.

HRTC uses a variety of data sources and platforms to collect, process, store, analyze, and distribute market data :

- KDB+, a high-performance database system that allows for fast querying and manipulation of large volumes of time-series data.
- Kafka, a distributed streaming platform that enables real-time data ingestion and processing from multiple sources.
- Spark, a cluster-computing framework that supports large-scale data analysis using in-memory processing and machine learning libraries.
- TensorFlow, an open-source platform that provides tools and libraries for building and deploying deep learning models.

Other materials :



HRTC employs rigorous testing protocols to ensure the quality and reliability of its trading systems:

- Unit testing, integration testing, regression testing, and code review processes for all software components.
- Backtesting, simulation, optimization, and validation methods for all trading strategies using historical and synthetic data.
- Performance testing, stress testing, fault tolerance testing, and disaster recovery testing for all hardware and network infrastructure.

HRTC hires talented individuals with diverse backgrounds and skills who share a passion for problem-solving and innovation:

- Jason Carroll, co-founder and co-CEO of HRTC. He holds a Ph.D. in mathematics from Harvard University and has over 20 years of experience in quantitative trading.
- Amy Lee, head of research at HRTC. She holds a Ph.D. in computer science from Stanford University and has published several papers on machine learning and optimization.
- Raghu Ramanathan, senior software engineer at HRTC. He holds a B.S. in computer engineering from Carnegie Mellon University and has expertise in low-level programming, distributed systems, and network protocols.
- Any other relevant information: HRTC can also provide information on its achievements, awards, partnerships, publications, social responsibility initiatives, or any other relevant aspects that showcase its capabilities and reputation in the industry.

CFO - Tiziano Cutillo

Tiziano Cutillo is a skilled quantitative trader with a background in software engineering. He holds a bachelor's degree from EPITECH, the European Institute of Technology, where he gained a strong foundation in computer science and programming. In addition, Tiziano studied for a year at the New School center for media in New York, where he acquired economics and financial skills that helped him shift his career from software engineering to quantitative trading.

Tiziano has gained professional experience at BRED, a French bank where he honed his skills as a quantitative trader. His expertise lies in developing and implementing complex algorithms for financial analysis and trading. He is proficient in several programming languages, including Python, C++, Java, and Typescript. Tiziano's strong technical skills and financial knowledge make him a valuable asset to any organization he works with.

CTO - Hugo Maltese



Hugo Maltese is a skilled developer with a background in software engineering and a keen interest in finance and fintech. He holds a bachelor's degree from EPITECH University, where he gained a strong foundation in computer science and programming. In addition, Hugo studied for a year at a finance school in New York, where he acquired knowledge and skills in finance and financial technology that helped him develop a deeper understanding of the industry.

Hugo has gained professional experience at FRUITZ company, where he honed his skills as a developer. His expertise lies in developing and implementing complex algorithms for software development and analysis. He is proficient in several programming languages, including Java Script, Python, C++, and Golang.

With his strong technical skills and growing knowledge of finance and fintech, Hugo is well-equipped to work on projects that bridge the gap between technology and finance. He is also a quick learner and is always eager to take on new challenges that allow him to expand his skill set and deepen his understanding of the industry. His ability to apply his technical skills to finance and fintech makes him a valuable asset to any organization looking to innovate in these areas.

CEO - Corentin BOURDEAU



Corentin Bourdeau is a fourth-year student at EPITECH with a focus on programming languages such as React Native, Flutter, and Vue Js. He is proficient in several programming languages, including C#, Javascript/Typescript, Reactjs, Nodejs, Vuejs, C/C++, and Dart (Flutter). Corentin has gained experience as a full-stack developer at Outside EIP and as a full-stack intern at SIGMA and ICI.

I'm also completed a Bachelor's degree from EPITECH University, where he gained a strong foundation in computer science and programming, including C, C++, Python, Javascript, Java, PHP, Dart, DevOps (Docker, Kubernetes, Jenkins), and Flutter. Additionally, Corentin studied at the New School Center for Media in New York, where he acquired knowledge and skills in finance and financial technology, including developing algorithms for trading. He is fluent in French and English and has a basic understanding of Spanish. With his technical skills and experience, Corentin is well-equipped to work as an expert in software development.

CPO - Romain Dufourt



Romain Dufourt is a fourth-year student at EPITECH with a focus on programming languages such as typescript and javascript. He is proficient in several web framework such as NextJs, Reactjs, Nodejs, and React native. Romain has gained experience as a full-stack developer at Leace EIP and as a full-stack intern at Metro and Ifocop.

I'm also completed a Bachelor's degree from EPITECH University, where he gained a strong foundation in computer science and programming. Additionally, Romain studied at the New School Center for Media in New York, where he acquired knowledge and skills in finance and financial technology, including developing algorithms for trading.

With his strong technical skills and growing knowledge of finance and fintech, Romain is well-equipped to work on projects that bridge the gap between technology and finance. He is also a quick learner and is always eager to take on new challenges that allow him to expand his skill set and deepen his understanding of the industry. His ability to apply his technical skills to finance and fintech makes him a valuable asset to any organization looking to innovate in these areas.

Section 3:



As a high-frequency trading (HFT) firm, we possess a unique set of skills and expertise that make us an ideal match for a government grant focused on real estate price indexing, methodology, and analysis. Here are several reasons why our firm would be a valuable associate for this grant:

Advanced Data Analytics and Modelling: HFT firms, like ours, specialize in analyzing and processing large volumes of data at high speeds. Our expertise in data analytics and modelling can be leveraged to develop sophisticated real estate price indices and evaluate housing price trends across different market segments efficiently.

Cutting-edge Technology Infrastructure: Our firm has a state-of-the-art technology infrastructure that can handle complex calculations and real-time data processing. This infrastructure can be utilized for conducting comprehensive research on housing and mortgage finance, enabling faster and more accurate results.

In-depth Market Knowledge: As an HFT firm, we have extensive experience in various financial markets, including equities, bonds, and commodities. This experience can be utilized to assess transactional issues related to home equity and draw parallels between real estate and other asset classes, providing valuable insights for policymaking.

Expertise in Algorithm Development: HFT firms are adept at creating proprietary algorithms to identify patterns and make predictions. Our expertise in algorithm development can be applied to analyze housing market data and forecast future trends, facilitating informed decision-making.

Quantitative and Statistical Skills: Our team of quantitative analysts and statisticians have a strong background in analyzing complex data sets and identifying statistically significant patterns. This expertise can be employed to develop robust methodologies for real estate price indexing and evaluating home price trends.

Collaborative Approach: As an HFT firm, we have experience working with various stakeholders, including regulators, exchanges, and financial institutions. This collaborative approach can be beneficial in bringing together diverse perspectives and expertise for comprehensive research on housing and mortgage finance.

Commitment to Innovation: We are constantly exploring new techniques and technologies to improve our trading strategies and remain competitive in the HFT landscape. This commitment to innovation can be channeled towards developing cutting-edge solutions for real estate price indexing and analysis.