YUXUAN WANG

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WORK EXPERIENCES

Hartree Partners London, UK
Application Developer *Mar. 2023 - Present*

- Designed and implemented data-driven solutions to support trading decisions and risk management, responding various demands in a fast-paced hedge fund environment and a complex and diverse commodities market.

- **Led the development of a Morning Market Data Report system**, automating the daily collection of critical market data (e.g., volatility, open interest, near-term and forward prices for key commodities) and storing it in **Redis** for fast access. Delivered user-friendly, interactive visualizations, enabling traders to analyze market trends and make informed decisions at the start of each trading day.
- **Built and maintained automated data pipelines** using **Python**, **Airflow**, and **PostgreSQL**, ensuring real-time data availability for trading decisions. Automated risk metric calculations (e.g., Greeks, Value at Risk) and delivered reports to risk control teams, leveraging **AWS** for data archiving.
- **Resolve discrepancies in option pricing** and volatility calculation by researching and comparing quantitative models, providing actionable solutions, partnered with risk control team.
- **Acted as the primary point of contact for traders, troubleshooting production issues** such as data gaps or anomalies.
- **Extend system functionalities**, delivering scalable and efficient solutions, collaborated with project managers.
- **Implemented unit tests** and **API tests** to ensure system reliability, and utilized **GitHub** for version control and collaborative development.
- **Deep understanding of commodities markets**: Developed systems and tools tailored to the unique characteristics of commodities trading, including varying exchange rules, contract specifications, and unit conventions across different products and regions.

Murex Paris, France
Senior Software Engineer - Commodity Team *Oct. 2017 - Jan.2023*

- Specialized in commodity derivatives pricing and software maintenance for MX.3, a leading trading and risk management platform used by banks, funds, and corporations worldwide.

- **Commodity Derivatives Pricing**: Developed and maintained pricing models for commodity derivatives within the MX.3 platform, ensuring accuracy and reliability in a highly regulated market.
- **Pricing Model Optimization**: Implemented a Coarse Grain Automatic Differentiation (**CGAD**) method to accelerate pricing calculations, improving system responsiveness by modularizing complex analytical formulas.
- **Legacy Code and Modular Design**: Maintained and refactored legacy **C** code while developing new features in **C++**, ensuring stability and scalability for diverse client needs in the commodities market.
- **Test-Driven Development**: Ensured code quality through unit tests and integration tests, following a test-driven development (TDD) approach.
- **Scrum Master**: Led agile processes as Scrum Master, coordinating cross-team collaboration and ensuring timely project delivery.

Murex Paris, France
Architect Intern - Equity Team *Apr. 2017 - Oct. 2017*

- Design and implementation of a generic finite difference module to compute sensitivities.

Cinda Securities Beijing, China
Intern - Capital Management department *Jul. 2016 - Aug. 2016*

- Assistance of developing a quantitative trading system, implementation of several strategies.

PetroChina Beijing, China
Intern - Market Research division *Jul. 2013 - Aug. 2013*

- Building causality/correlation models between oil price and American monetary policy, using Econometrics et Statistics knowledge, and software **R**.

EDF Paris, France
Intern - R&D division *Jul. 2012 - Aug. 2012*

- Building speed regulation models using **MATLAB** for hydroelectric generators (automation, optimisation, Laplace transforms).

EDUCATION

Ensimag, National School of Informatics and Applied Mathematics Grenoble, France
Engineer's degree in Computer Science and Financial Engineering *2014-2017*

- Algorithms, Programming in C++ and Java, Networks, Databases, Numerical methods, Statistics, Stochastic processes
- Project : Implementing a complier of a Java sublanguage

IAE Grenoble, Graduate School of Management Grenoble, France
Master of Quantitative Finance *2016 - 2017*

- Financial market, Portfolio management

Université de Bretagne Occidentale Brest, France
Bachelor of Applied Mathematics and Social Sciences *Sep. 2011 - Jun. 2014*

- Mathematical analysis, Linear algebra, Probability, Economics

SKILLS

Programming	Python, C++, C, SQL, Git (Working use for 6 years)
	R, Java, Matlab (Scholar projects)
Languages	English (IELTS 7.5/9), French (Fluent), Chinese (Native)

INTERESTS

Comedy Experienced trilingual stand-up comedian.