Mélodie (Jingyi) Luo

(917) 251-4685 ■ jingyi.luo@nyu.edu ■ linkedin.com/in/jingyi-luo-melodie

EDUCATION

New York University, Courant Institute of Mathematical Sciences **New York, NY**
M.S. in Mathematics in Finance December 2021
- ***Coursework:*** dynamic asset pricing, equity derivatives, financial securities and market, interest rate & Fx model, machine learning, market microstructure, option pricing, trading energy derivatives

Phelma, École d'Ingénieur de physique, électronique, matériaux **Grenoble, France**
M.S. in Physics and Nuclear Engineering June 2017

Sun Yat-sen University, Institut Franco-Chinois de l'Énergie **Zhuhai, China**
M.S. in Nuclear Engineering and Technology June 2018
- ***GPA:*** 3.9/4.0
- ***Award:*** Top-10 Students of the Year in the university**,** 1st Prize Academic Scholarship (top 1%)
- ***Coursework (in French):*** applied statistics, numerical method, quantum physics, stochastic calculus

B.S. in Physics and Nuclear Engineering June 2016

EXPERIENCE

Citi **New York, NY**
Summer Quantitative Analyst June 2021 - August 2021
- Implemented machine learning models in Python to predict short squeeze, with success ratio 60% in average
- Optimized model accuracy by 25% by incorporating human-driven factors based on web crawler from Reddit
- Industrialized the model into Citi's prime brokerage platform OPERA, which is used for traders and external clients

China Power Group Technology Research Institute **Shenzhen, China**
Software Engineer June 2018 - August 2020
- Utilized C++ to develop an advanced coupling code which was then deployed to industrial application
- Led the development of large-scale automatic modeling function in C++, which reduced the time-cost for downstream design engineer users by 8x
- Implemented an innovative numerical algorithm solver in the thermal-hydraulic calculation code in C++, enhancing the calculation efficiency by 5x
- Led front-desk team of 45 people to organize 14 meetings and workshops with foreign assessors

Commissariat à l'Énergie Atomique et aux Énergies Alternatives, CEA **Paris, France**
Scientific Engineer May 2017 - August 2017 & November 2017 - June 2018
- Conducted quantitative uncertainty analysis on nuclides data library by calibrating sensitivity models in C++ and Python to support client EDF in their safety assessment
- Developed a high-performance platform in Python and Linux Shell to automize data extraction, calculation, and report generation for designers
- Authored a 41-page report on uncertainty analysis research data which included various visualization charts, and gave out presentations to hiring committees in French

PROJECTS

Goldman Sachs **London, United Kingdom**
Quantitative Intern January 2021 – March 2021
- Conducted correlation across 8 asset classes represented by Indices by 3-year historical data in Python and analyzed its special performance amid pandemics
- Built quantitative model to forecast oil relationships for 2021 and fulfilled a pitchbook for investors

PROFESSIONAL PRESENTATIONS

- S. Lahaye, **J. Luo**, & P. Bellier (2018). Uncertainty Quantification of Isotopic Densities in Depleted Fuel. Paper presented at the ANS Best Estimate Plus Uncertainty International Conference, Italy.
- Q. He, **J. Luo**, & J. Chen (2020). Development and Validation of Non-LOCA Thermal-Hydraulics and Three Dimensional Neutronics Coupling code. Nuclear Power Engineering. 0258-0926(2020).

SKILLS & OTHERS

Programming Languages: Python, C++, Linux Shell, Java, C

Other software: MATLAB, MS Office, LaTex, Origin, COMSOL, SolidWorks

Languages: English (Fluent), French (Fluent), Cantonese (Native), Mandarin (Native)

Certifications: DELF B2 Certification (French), European-accredited engineering master degree