KELVIN CHIU

| ☎ (+44) 7300 884 615 | ✉ kchiu1997wk@gmail.com | https://kylchiu.github.io |

Experienced quantitative developer with 3 years of experience in C++20 and Python 3, specializing in algorithm implementation, performance optimisation and financial model development. Proven ability to deliver efficient, high-quality code in fast-paced environments.

WORK EXPERIENCE

Volatility Quantitative Developer June 2024 - Ongoing
Man AHL London, UK

Core Quantitative Developer, Assistant Vice President Jul 2020 - May 2023
Barclays Investment Bank London, UK

- Co-engineered a C++ caching architecture, enhancing run performance by 30% whilst improving stability.
- Co-developed a fault-tolerant Python/Jenkins pipeline automating risk runs with over 1 million trades.
- Developed runtime risk tensor overrides in C++ to resolve production level result consumption issues.
- Implemented finite difference option pricing for the Heston model in a proprietary CUDA-like language.
- Enforced standards on code quality and design as an appointed gatekeeper within a team of 40 members.
- Presented consistently to promote uniform knowledge adoption and understanding within the wider team.

EDUCATION

MSc Mathematical and Computational Finance, with Distinction Sep 2019 – Jul 2020
Oxford University Oxford, UK

BSc Mathematics, with First Class Honours Sep 2016 - Jul 2019
Warwick University Coventry, UK

PROJECTS

- Spearheaded a team in creating Sporkfish, a high performance numba Python chess AI.
- Implemented EMCE, an extensible Monte Carlo C++/CUDA framework for options pricing.
- Wrote Kutils, a C++20 utilities library including thread pooling, future chaining and lock-free queues.
- Ranked among the top 2% of 1 million users on Project Euler.
- Investigated modelling scheduling with argumentation in MS-Arg; completed at Imperial College London.

SKILLS

- **Languages**: C++20 (STL, CMake), Python3, Bash
- **Performance**: multi-threading, async, vectorisation, macro/micro-benchmarking, complexity analysis
- **DevOps**: Docker, git, testing (pytest, GoogleTest), CI/CD (Jenkins, GitHub Actions), JIRA, Linux
- **Mathematics**: Monte Carlo, finite differences, stochastic calculus, time series, optimisation
- **Communication**: English (native), Cantonese (conversational), Mandarin (conversational)