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 an asynchronous C++ data caching architecture, enhancing runtime performance by 30%.
- Co-developed a fault tolerant Python/Jenkins pipeline, automating risk runs with over 1 million trades.
- Developed the widely adopted tensor overrides in C++ to resolve result consumption issues in production.
- Implemented finite difference schemes for the Heston model in a language compiling into C++ and CUDA.
- Enforced standards on code quality and design as an appointed gatekeeper within a team of 40 members.
- Promoted uniform knowledge adoption and understanding through consistent presentations to the 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 based Python chess engine.
- Implemented EMCE, an extensible Monte Carlo C++/CUDA framework for options pricing.
- Developed Kutils, a C++20 utilities library featuring thread pooling, future chaining, and lock-free queues.
- Achieved a ranking within the top 2% among over 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, microbenchmarking, complexity analysis
- **DevOps**: Docker, git, testing (pytest, GoogleTest), CI/CD (Jenkins, GitHub Actions), JIRA
- **OS**: Linux (Ubuntu), Windows
- **Mathematics**: Monte Carlo, finite differences, stochastic calculus, time series, statistics, optimisation
- **Communication**: English (native), Cantonese (conversational), Mandarin (conversational)