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John Duffy

A December 2020 MSc Scientific Computing graduate from UCL (Distinction) with previous military service and commercial experience.

With a BEng Electrical Engineering from Imperial College, equipped with a strong understanding of computing from high-level software design, down to the low-level hardware execution.

Actively seeking a position as a C++/Python software developer in a proprietary trading firm or hedge fund, or as an ML software engineer in a firm developing cutting-edge AI.

MSc Scientific Computing
UCL

BEng Electrical Engineering
Imperial College

Certificate in Securities
Securities Institute

Certificate in Derivatives
Securities Institute

- C++, CMake, Catch2, GoogleTest, GoogleBench
- Python, SciPy, NumPy, Numba, NumExpr
- Pandas, scikit-learn, Keras, TensorFlow
- C, OpenCL
- Rust
- MATLAB
- Linear Algebra, Numerical Methods
- Linux
- Git/GitHub, Travis
- Oracle Certified Professional, Java SE 8 Programmer
- Operations management, Technical Lead for a £2 Billion bid, bid writing, presentation, leadership, commercial and regulatory responsibility

MSc Scientific Computing

UCL (Sep 19 – Dec 20)

Distinction achieved on completion of the following courses:

High Performance Computing

Python, NumPy, Numba, NumExpr, OpenCL, Linear Algebra

Research Software Development in C++

C++, CMake, Eigen, Git, Travis

Software Engineering with Python

Python, NumPy, K-Means Clustering, pytest, Git, Travis

Machine Learning and Big Data

Python, Pandas, Seaborn, scikit-learn, TensorFlow

Numerical Methods

Numerical methods for solving Non-Linear Equations, Linear Systems and Ordinary Differential Equations

Numerical Optimisation

Line Search, Trust Regions, Conjugate Gradient, Quasi-Newton and Constraint Optimisation methods

Computational and Simulation Methods

Finite Difference and Finite Element methods for solving Partial Differential Equations

Mathematics and Statistics of Algorithmic Trading

Market Microstructure, Optimal Execution, Pairs Trading

Software Developer and Helicopter Pilot

Freelance (Jan 18 – Sep 19)

Oracle Certified Professional Java SE 8 Programmer training and freelance offshore and VIP helicopter pilot.

Helicopter Pilot

CHC, Bond (Jan 02 – Jan 18)

Offshore helicopter pilot, operations manager and Technical Lead for a £2 Billion bid to provide Search & Rescue (SAR) helicopter services to the UK Government.

Naval Officer and Helicopter Pilot

Royal Navy (Jan 90 – Jan 02)

Leadership skills honed as the pilot and Commander of a Seaking helicopter operating from Royal Navy frigates and destroyers, aircraft carriers, and in the Scottish Highlands.