# JONATHAN K. Y. TANG

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# **EDUCATION**

# University College London MSc Computational Finance | September 2020 – September 2021

Relevant modules: Financial Engineering, Algorithmic Trading, Machine Learning Applications in Finance, Numerical Methods for Finance, Data Science

Activities: Men's Hockey Club, Data Science Society, EFS Society, Investment Society, FinTech Society

# Goldsmiths, University of London

BSc (Hons) Computer Science | September 2017 – June 2020

Result: First Class Honours

Thesis: Deep sequential learning for option pricing (79%)

Relevant modules: Advanced Algorithms and Data Structures, Machine Learning, Neural Networks, Mathematical Modelling

Activities: Hockey Club (2019-20 President & 2018-19 Secretary-Treasurer), Chamber Choir, Hacksmiths Tech Society

# **COMPUTING SKILLS**

#### Languages

Python, C++, Java, R, Matlab, MySQL, MongoDB, JavaScript, HTML, CSS, LaTeX

#### Tools

Git, AWS, Jupyter, Tableau

### **Operating Systems**

MacOS, Linux/Unix, Windows

# VOLUNTEERING

# ICC Men's Cricket World Cup 2019 Cricketeer | June 2019 - July 2019

 Placed in the Spectator Services team, at Lord's Cricket Ground, London.

# England & Great Britain Hockey Hockey Maker, Women's World Cup 2018 | June 2018 - August 2018

 Placed in three divisions: Logistics, Event Services (Access Control), and Spectator Services.

# **LANGUAGES**

English & Cantonese Chinese – Bilingual Proficiency (Written and Spoken)

# PROFESSIONAL EXPERIENCE

#### CITI | London

#### Global Markets Technology Summer Analyst | June 2020 - August 2020

- Internship adapted to training program due to COVID-19.
- Delivered weekly presentations on data analysis & visualisation using Python and PowerBI, cloud technologies (AWS), UX/UI, REST APIs, DevOps, and machine learning.
- Self-organised sessions in technology and quantitative teams across all asset classes.
- Received full-time offer for Summer 2021 start.

#### **DEUTSCHE BANK | London**

#### Strats Summer Analyst | June 2019 - August 2019

- Placed in Cross-Business Strats team, focusing on the FX global markets.
- Created profit and loss forecast models for all FX trading desks, using Python, Clickhouse, and Tableau. Presented the findings to FX Finance.
- Worked in an Agile team to develop a deep learning news article sentiment analysis system using Python, TensorFlow, and Keras.
- Received full-time offer for Summer 2020 start.

#### GETRENTR | London

#### Machine Learning & Data Science Intern | June 2018 - September 2018

- GetRentr is an AI-PropTech start-up that aggregates property regulation and compliance data in relation to the private rental sector
- Collected, cleaned and aggregated over 300,000 properties from leading rental websites for presentation to the Greater London Authority and Ministry of Housing.
- Worked in a team to build a machine learning prediction cost model based on the property rental market.
- Conducted natural language processing tweets and news articles about property rental market compliance for internal use on Slack.
- Visualisation of over 4.8 million companies from the HM Companies House database to track rogue landlords.

# JOHN LEWIS PARTNERSHIP | London

### Retail Data Analytics Intern | August 2016

- Reporting on in-branch vs. online sales in under-performing catchment areas, using the Acorn demographics data set.
- Analysis of 2000 NPS surveys on navigational aspects of the website, and using data from Adobe Omniture to increase user experience.

#### **PROJECTS**

# Deep Sequential Learning for Option Pricing

- Investigation into the performance of deep learning models and statespace estimation algorithms for pricing European-style call options.
- Used Python (with TensorFlow and Keras), and Matlab.

# Augmented Reality Navigation System for Commercial Spaces (link)

- Researching and creating an augmented reality indoor museum navigation system with the A\* path-finding algorithm.
- Developed for Android devices using Java, Kotlin, and ARCore
- Enforced Agile with Scrum SDLC, with the Scrum Master role.

# European Union and Global Trade Visualisation (link)

- Visualising over 90 datasets from Eurostat on imports and exports of goods and services within the EU28, along with other key international trade countries.
- Using JavaScript (p5.js, d3.js, c3.js), HTML, CSS, Python, and the Google Maps API.