JONATHAN K. TANG

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EDUCATION

University College London
MSc Computational Finance | September 2020 – September 2021
Result: Distinction

Thesis: Explainable deep learning for corporate bond spread prediction

Relevant modules: Financial Engineering, Financial Institutions and Markets, Algorithmic Trading, Numerical Methods, Machine Learning, Data Science

Activities: 1st XI Men's Hockey, Data Science Society, EFS Society

Goldsmiths, University of London
BSc (Hons) Computer Science | September 2017 – June 2020
Result: First Class Honours

Thesis: Deep sequential learning for option pricing

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

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

COMPUTING SKILLS

Languages
Python, C++, Java, Matlab, MySQL, MongoDB, JavaScript, HTML, CSS

Tools
Tableau, Qlik, Git, Jupyter, AWS

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*
Technology Analyst Program - Rotation One | September 2021 - Present
- Dual role in data analytics and software engineering in TTS Technology: Core Accounts, Last Mile Transformation, and Treasury Funding Group.
- Automated and optimised reporting of retrieving transaction data across 10 global apps using Imapla, Hadoop, PySpark, and Qlik.
- Created visualisations and mock-ups for tracking technology architecture change requests in Qlik using the Agile SDLC.
- Constructed gateway components to integrate last-mile apps to Citi's payments infrastructure using REST APIs, Java, Spring, and MongoDB.
- Building out user interface to support the end-to-end flow for forecast funding as part of TFG using React and TypeScript.

INTELLIBONDS| *London*
Quantitative Researcher | June 2021 - September 2021
- IntelliBonds is a fintech focused on cost optimisation and alpha generation through AI for fixed income institutional investors.
- Researched into explainability and interpretability of LSTM deep neural networks for investment-grade corporate bond spread prediction.
- Led design and development of XAI models with novel techniques for their portfolio platform using Python, Tensorflow and Keras.

CITI | *London*
Markets Technology Summer Analyst | June 2020 - August 2020
- Internship adapted to training program due to COVID-19.
- Delivered weekly presentations on data analytics, cloud technologies (AWS), UX/UI, REST APIs, DevOps, and machine learning.
- 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, and Clickhouse. Presented findings to FX Finance with Tableau.
- Worked in a team to develop a deep learning news article sentiment analysis system with 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.
- Worked in a team to build a machine learning model to predict property prices on the rental market for presentation to the Greater London Authority and Ministry of Housing.
- Developed visualisations of over 4.8 million companies from the HM Companies House to track rogue landlords using MySQL and d3.js.

PROJECTS

Deep Sequential Learning for Option Pricing
- Investigation into the performance of deep learning models and state-space estimation algorithms for pricing European call options.
- Used Python (with TensorFlow and Keras), and Matlab.

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, and Python.