Quek Jian Hong Joel

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EDUCATION

National University of Singapore	Current

Masters in Computing (Computer Science)
Expected Graduation Date: May 2019 – Able to start on short notice and finish course on a part-time basis if required.

Nanyang Business School, Nanyang Technological University	Aug 2015

Double Degree in Business & Computer Science
Dean's List (AY2014/15; 13/14; 12/13; 11/12)
Valedictorian, Class of 2015
Computer Science CGPA: 4.84, Business CGPA: 4.75

Singapore Polytechnic	Apr 2011

Diploma in Electronics, Communications and Computer Engineering
Graduated with a CGPA of 3.924/4 (Earned the Wanhe International Prize for topping the specialization)

INTERNSHIP/WORK EXPERIENCE

Goldman Sachs	Apr 2016 – July 2017
Quantitative Risk Modeller, Finance Division	

- Tasked with the development and review of quantitative models used by the firm to assess market risk in the credit space, reviewing the findings from the model validation team and modifying the models as appropriate. Models were implemented using Slang, a firm proprietary language similar to C.
- Analyzed and sourced appropriate datasets to be used for representing the firm's risk exposure in its internal repo funding rate desk.
- Documented various value-at-risk and stress test models used by the firm in detail for the Federal Reserve's comprehensive capital analysis and review – an annual exercise whereby the regulator rigorously assesses the firm's capability in withstanding unexpected adverse shocks to the markets.

JPMorgan Chase	August 2015 – March 2016
Technology Analyst (Software Developer)	

- Conceptualized and built automated equity trading system in Java with a group of entry-level analysts as part of an inhouse trading competition.
- Developed a web application using a Python RESTful API backend that provides predictive analytics on the completion of scheduled trade processing tasks in Athena, JPMorgan's cross asset risk management system – this pre-emptively notifies stakeholders of delays in the generation of critical information or reports by the system.
- Analyzed the different programming applications used by the FX, Commodities and Rates teams and found opportunities to standardize common functions into the same codebase.

JPMorgan Chase	May 2014 - Aug 2014
Summer Intern in FX Dev. Technology	

- Designed and implemented an equity portfolio management system as part of an intern initiative; the system evaluates the portfolio's value at risk through Monte Carlo Simulations and recommends possible hedging and investment strategies such as purchasing options and rebalancing the portfolio.
- Streamlined business efficiencies by about 12 hours a week with the creation of a trade diagnostic web application that provides operations users with trade statuses and diagnostic analytics.
- Worked on Athena, JPMorgan's cross asset risk management system; Liaised with core developers to create a code framework for them to leverage on.

RELEVANT PROJECTS

Kaggle Competition: Bank term deposit prediction problem from telemarketing data	Nov 2017
Team Lead, In-Class Kaggle for NUS-CS Graduate Module (Course taken part-time)	

Placed 1st out of 29 teams for In-Class Kaggle Competition (Graduate-Level Data Mining module in NUS). Utilized stacking ensemble techniques featuring multiple Python sklearn machine learning models including Gradient Boosted Decision Trees, Neural Networks, feature engineering, hyperparameter tuning and thorough validation techniques to improve generalization.

Metacognitive Learning Algorithm for Big Data Analysis
Final Year Project (Undergraduate studies)

Aug 2014- Aug 2015

Developed meta-cognitive learning model regulating the when-to-learn, how-to-learn and what-to-learn aspects of batch learning. Improved upon the base Type-2 Fuzzy Neural Inference System in Python to generalize big data analysis better – validating it by successfully reducing testing error for many benchmark dataset problems after implementation.

Undergraduate Research Project
Undergraduate Researcher

Aug 2012 - Aug 2013

Independently conducted research in the field of database optimization for science applications as part of the NTU's Undergraduate Research Experience on CAmpus (URECA)'s programme.
Investigated optimization issues on efficient information retrieval including querying methods and other hardware and software related solutions.

SKILLS/COMPETENCIES AND INTERESTS

Quantitative Thinking	:	Engineering Background. Scored mostly As for coursework involving mathematics, including Calculus, Linear Algebra, Statistical and Quantitative Methods
IT Project Management	:	Technical Lead Experience in SDLC level projects in school as well as internships. Led the pro-bono consulting project for a non-profit.
Financial Analysis	:	Taken and achieved As in coursework modules for Accounting, Financial Management, Economics and Business Analytics. Scored 670 for Bloomberg Aptitude Test. (99th percentile). Passed CFA level I in 2016.
Programming	:	Competent with Java (OCJP-A Certified) and Python, intermediate working knowledge with C/C++. Scored A+'s in relevant coursework such as Object Oriented Programming, Data Structures and Algorithms.
Data Science	:	Familiar with working on ML models using Python sk-learn library and basics of working with MATLAB. Scored As in Business Analytics, Data Mining (A+'s for Artificial Intelligence and Neural Networks)
Web Development	:	Familiar with PHP, HTML5, JavaScript and RESTful web architecture
Language Proficiency	:	English (Advanced), Mandarin (Chinese) (Advanced), Japanese (Elementary)