Jason Chan Jin An

DATA SCIENTIST · MACHINE LEARNING ENTHUSIAST · CERTIFIED ALTERYX CORE DESIGNER· GUITARIST· MIXED MARTIAL ARTS FAN

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# Education

**The University of Hong Kong (HKU)** *Hong Kong*

B.SC IN QUANTITATIVE FINANCE, GRADUATION DATE: AUG 2016, GPA: 3.40 *Sep 2012 – Aug 2016*

* Notable Coursework: Financial Engineering, Quantitative Risk Management, Mathematical Finance,

Multivariable Calculus, Linear Algebra, Probability Modelling, Financial Modelling, Computer Programming

* Programming Languages: R, Python

# Relevant Work Experience

**Fidelity International** *Hong Kong*

DATA SCIENTIST *Dec 2016 - Present*

* Applied tuned random forest model to predict client attrition using over 20 features and analyzed factors contributing to client specific attrition.
* Integrated Tableau and R to create a dynamic machine learning dashboard that predicts incremental net sales of funds from marketing campaigns.
* Initiated a proof of concept (POC) with investment team to apply deep learning using over 15 technical indicators to predict trading signals.
* Developed an early warning indicator email trigger using daily historical fund redemptions data to predict redemption anomalies using Extreme Studentized Deviate (ESD) test.

**FDM Academy** *Hong Kong*

DATA ANALYST TRAINEE *Aug 2016 - Dec 2016*

* Undergone 4 months of technical training in the following modules: SQL, UNIX, Python, Tableau.
* Wrote a data preprocessing pipeline of trainee placement data using a Python script.
* Performed exploratory data analysis (EDA) using Tableau and built dashboards to provide insights.
* Awarded the FDM Star Award for outstanding performance.

**GROUPON** *Malaysia*

DATA ANALYST INTERN *Jun 2015 - Aug 2015*

* Analyzed web analytics data from Google Analytics such as sessions, views, and bounce rates to

report daily findings to city planners and managers.

* Data blending of data from Google Analytics and Salesforce data to engineer new features such

as coupon conversion rate and coupon bounce.

* Helped a city planner construct a sales team tracking dashboard using Excel VBA and

useful sales metrics

# Projects ([View website](https://jasonchanhku.github.io/) for full list)

## Mixed Martial Arts Fight Predictor

WRITTEN IN PYTHON ([View Web App](https://ufcmmapredictor.herokuapp.com/)) *Jul 2017 - Dec 2017*

* Trained a machine learning model to output the win probability of two fighters for an upcoming fight and built a web app using Python Dash and deployed on Heroku.
* Built scheduled web crawlers to scrape and cleanse fighters’ and fights data from Fightmetric and push data to Amazon S3 Bucket.
* Performed exploratory data analysis (EDA) and statistical analysis before applying feature and model selection to predict winners of fights with 70.4% accuracy (benchmark 60%).
* Featured on [Data Science Hong Kong](https://datasciencehongkong.com/) after hackathon pitch.

## Financial Engineering Capstone Project

WRITTEN IN R ([GitHub Repository](https://github.com/jasonchanhku/FINENG)) *Feb 2016 - Jun 2017*

* Designed and structured a complex Principle Guarantee Note betting on drop in oil price and MYR/USD using vanilla and lookback options.
* Implemented the Heston Model to model underlying FX rate and volatility to overcome fat tail distribution.
* Wrote visualization, Monte Carlo option pricing, optimization codes and evaluated product performance.
* Project was graded A after presentation of project.

# Technical Skills

## Data Preparation and Preprocessing

* R libraries used: data.table, reshape2, dplyr, lubridate, stringr, MICE, ggplot
* Python libraries used: pandas, numpy, matplotlib, seaborn, plotly

## Machine Learning

* R libraries used: H2O.ai, rpart, RandomForest, caretEnsemble, e1071
* Python libraries used: scikitlearn, tensorflow, keras

## Web Scraping

* R libraries used: rvest
* Python libraries used: scrapy, selenium

## Alteryx

* Build efficient large-scale workflows to reduce time spent on data cleansing.
* Use of advanced batch macro to efficiently iterate R and Python Scripts across grouped datasets.

## Tableau and Tableau Server

* Build advanced dashboards using parameter control, calculated fields, and level of detail expressions.
* Integrate R and Tableau to produce dashboards with dynamic machine learning visualization.

## Big Data

* Scale R to Big Data Using Hadoop and Spark cluster from Azure HDInsight.
* Wrangle data out of an HDFS and build machine learning models from a large dataset.
* Deploy machine learning model to an elastically scaled web service for callable predictions and insights.

# Communication

## Website

[PREDICTING THE UNPREDICTABLE](HTTPS://JASONCHANHKU.GITHUB.IO/)

* Used Jekyll Now to build my website hosted on GitHub where I showcase my my projects and write about

new ideas as potential projects.

## Alteryx Q12018 User Group Meeting

GUEST SPEAKER *Mar 2018*

* Presented my best use cases of using Alteryx at work
* Shared some tips and tricks to building more efficient Alteryx workflows

## Data Science Hong Kong Hackathon

PROJECT PITCHER *Dec 2017*

* Presented my UFC MMA Predictor Web App to the Data Science Hong Kong community
* Collaborated with hackathon participants to resolve outstanding issues in projects

# Certificates

## Deeplearning.ai

CERTIFICATE OF COMPLETION *Feb 2018*

* Neural networks and deep learning
* Improving deep neural networks
* Structured machine learning projects
* Convolutional neural networks

## Alteryx

CERTIFIED CORE DESIGNER *Jan 2017*

* Demonstrated proficiency with the fundamentals of using Alteryx Designer
* Tested concepts: Data Types, Preparation, Blending, Descriptive Analysis, Basic Macros & Analytic Apps