

# LU Yuan 卢苑

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## EDUCATION

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**The Chinese University of Hong Kong, Business School**

08/ 2019 -07/2024(Expected)

Ph.D Student in Finance

**The Hong Kong University of Science and Technology, School of Science**

09/ 2017 -12/ 2018

Major: Financial Mathematics

Degree: Master of Science

GPA:3.78/4.0

Relevant Course: *Statistical Methods in Quantitative Finance, Advanced Data Analysis with Statistical Programming, Statistical Machine Learning, Stochastic Calculus, Quantitative Modeling of Derivatives Securities, Structured Products and Solutions, Capstone Project in Financial Mathematics*

**Nankai University, College of Computer and Control Engineering**

09/ 2013 - 07/ 2017

Major: Intelligent Science and Technology

Degree: Bachelor of Engineering

GPA: 88.08/100

Relevant Course: *C++ Programming Language, Introduction to Robotics, Machine Vision, Visual Program in Control System, Intelligent Technology, Fundamentals of Cognitive Science, Linear Algebra, Differential Equation and Complex Analysis, Operation Research, Intelligent Engineering, Introduction to Motor Driving*

## CONFERENCE & PAPER

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**35<sup>th</sup> Chinese Control Conference, CCC 2016**

7/ 27/ 2016 - 7/ 29/ 2016

- Lu Y, Hu Y, Liu R, et al. *The design of simulation vehicle system controlled by multichannel EEG based on imaginary movements* [C]//Control Conference (CCC), 2016 35th Chinese. IEEE, 2016: 4976-4981.

## RESEARCHES

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**Research on Predictability of Stock Price based on RNN&CNN**

02/ 2018 - 05/ 2018

- Constructed RNN+CNN model to analyze high-frequency stock data. Based on Python tensorflow, the model was experimented in two kinds of datasets.
- Dataset 1: Using minute-level stock data like open/close/highest/lowest price, vwap, trade volume to forecast the trend of next minute' close price. Dataset 2: Using higher-frequency (every 3 sec) stock data to form 4 features SRL/OQD/RTS/TAI.
- Determined appropriate hyperparameters after a mass of experiments to achieve a better convergence and smaller training error. Also tried to reduce overfitting so as to achieve a better performance in the out-of-sample experiments.

**EEG(electroencephalography)-controlled Quad-rotor UAV(Unmanned Aerial)**

03/ 2015 - 04/ 2016

- Realized mind control on the take-off and the landing of UAV.
- Took charge of EEG part, modified C++ program to collect brain signals transmitted by Emotiv Epoc+ Neuro Headset, determined data length and acquisition time of EEG to achieve a better result by many experiments.
- Programmed on MATLAB, used wCCA algorithm to preprocess EEG signals (eliminate EOG noise), used CSP to extract features of EEG, classified the extracted features by KNN. Wrote online-learning method to avoid collecting a large amount of offline data as the training set in advance and make EEG closer to the subjects' current state.

## INTERNSHIPS

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**Invesco Great Wall Fund Management Co., Ltd.**

**Shenzhen, China**

07/ 2018 - 9/ 2018

Researcher Intern in Fixed Income Department

- Trading: wrote python program "reminder to the deviation of credit bond", used Web Crawler Technology to get trading information, used wind api to get the bond information such as issuer, valuation. If the trading yield deviated from the valuation, which means the bond had potential risk, the "reminder" would mark the trading message and then send to designated people.

- Industry Bond Research: made research on Liquor Industry, reviewed the main Liquor-Bond issuers and their characteristics. Selectively analyzed the typical company—Yanghe Group.
- Chengtou bond Research: Ranked prefectural-level cities in Zhejiang according to their credit qualification; Reviewed the Chengtou bonds in Ningbo and mainly focus on Ningbo Rail Transit Group.

**PINGAN Securities Co., Ltd.      Shenzhen, China**

02/ 2018 - 5/ 2018

Trader Intern in Fixed Income Department

- Wrote FICC daily report: collected daily news; analyzed daily market according to open market operation, interest rate, credit spread and policy; analyzed market sentiment according to issuance/bidding performance and gave appropriate instruction and advice to clients.
- Assisted traders to finish trade support work; organized trading information such as market share, bid/win ratio. Communicated with underwriters and clients, analyzed their demand and design a more professional service.

**Great Wall Fund Management Co., Ltd.      Shenzhen, China**

07/ 2016 - 8/ 2016

Researcher Intern in Research Department

- Conducted research on computer industry and companies, made a report in the morning meeting every day.
- Wrote reports on Cloud Computing and Artificial Intelligence, analyzed their market position, hot technologies, and relevant companies.

### **AWARDS & HONORS**

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Merit Student of Nankai University (3 times)	10/ 2015 & 11/ 2016 & 05/ 2017
The 1st Prize Scholarship of Nankai University	11/ 2016
The All-around Development Scholarship of Nankai University	10/ 2015
The 3rd Prize of Undergraduates' Innovative Research Project	05/ 2016
The 2nd Prize at the national level & the 1st Prize in Tianjin in Undergraduate Mathematical Contest in Modeling	12/ 2015
Merit Member of National Tencent Innovation Club	09/ 2014

### **ADDITIONAL INFORMATION**

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**Research Employment:** RA at HKUST Department of Finance

01/ 2019 – 07/2019

**Certificates:** Pass CFA Level I, FRM Level I, SAC

**Skills:** Proficient in: C++, Python, R, MATLAB, VBA, Photoshop

Familiar with: TensorFlow, OpenCV, Simulink, MFC

**Leaderships & Activities:** 1. Vice-Chairman of Tencent Innovation Club. 2. Director of Practice Department in Tianjin-Jiangxi Students' Federation. 3. Volunteer of L'Oréal, Nankai Library and Hetong Nursing Home

**Interests:** Gu Zheng, Ping-Pong, Volleyball, Swimming