ZHU Xingzhu Hayden

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Education

University of Hong Kong — Hong Kong
Bachelor of Science in Quantitative Finance, Minor in Mathematics — *Sep. 2015 – May 2020*

- GPA: 3.94 (QFin 4.01/4.30, Math 4.00/4.30)
- First prize in Contemporary Undergraduate Mathematical Contest in Modeling in 2017 in HK
- HKU Foundation Scholarships for Outstanding International Students, HKSAR Government Scholarship Fund, Lee Shau Kee Scholarships, and Faculty of Business and Economics Dean's Honor List for 2016-2020

University of California Berkeley — Berkeley, CA, US
Semester Exchange (UCEAP), Major in Mathematics — *Jan. 2018 – May 2018*

- GPA: 3.78/ 4.00

Experience

Equity Financial Engineering Trainee — Aug. 2020 – Present
Natixis — *Hong Kong*

- Perform daily pricing inquiries (Autoswitch, Autocall, Palladium, Reverso, Outperformance, etc) and test on thematic products (ESG scheme, EUR debt mutual funds, etc)
- Research and draft insights or visualizations to explain non-flow structures for sales and clients
- Initiate auto pipelines for non-flow QIS products from data query, pricing on server, backtesting, to ppt generation
- DevOps: manage and develop a python-based full-stack software for auto termsheet

Quant Engineer Intern — Jan. 2020 – Jul. 2020
AQUMON — *Hong Kong*

- Researched and developed AI strategies used for mutual fund selection (covering 100k+): calculated 286 factors, reduced dimensions to by PCA, and trained models with Xgboost and LARS models, realizing monthly rating system (semiannual updates at Morningstar)
- Designed trading algorithms and prepared testing examples, taking considerations of optimizing drift (simplify integer programming), accidental shutdowns and corner cases by volatile market

Summary Analyst — Jun. 2019 – Aug. 2019
Deutsche Bank DWS — *Hong Kong*

- Researched on market impacts caused by trading executions, and detected information leakage responses of brokers through AI analysis of trading data
- Constructed and automatized financial modeling for project companies

AI Research Intern — Jan. 2019 – Jun. 2019
SenseTime Group Limited — *Hong Kong*

- Designed and implemented a more efficient algorithm to solve the multi-objective optimization problem in SNAS, which is to transform tuning the Lagrange multiplier into solving a quadratic programming problem
- Generated and tested hypothesis, and re-designed parameter tuning process to interpret and correct abnormal training outcomes from data visualizations on TensorBoard
- Accelerated the training process with CUDA on GPU cluster, dropping checkpoints, and reducing batch size

Coop Student Trainee — Aug. 2018 – Dec. 2018
HSBC — *Hong Kong*

- Adopted AI techniques (machine learning) to predict cash flows for commercial bank with analysis of validation outcomes and achieved similar accuracy rate as an outsourced machine learning solution provider
- Made web crawlers to extract information of 4,500 FinTech startups worldwide from JSON and classified them into different business categories (Robo-advisor, blockchain, et cetera)

Technical Skills

Languages: Python, R, C++, JavaScript, Java, C#, VBA
Frameworks: Node.js, Jinja
Developer Tools: Git, VS Code, Visual Studio, PyCharm, Shell
Libraries: Pandas, NumPy, PyTorch

Certificates

FRM I Passed
Andrew Ng's Deep Learning Specialization