

HONGLU FAN

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45 Chemin de Floreyres

Yverdon-les-Bains, Switzerland

WORKING EXPERIENCES

Postdoctoral Researcher

University of Geneva

Mar 2021

Geneva, Switzerland

Current full-time position.

Lead Engineer and Interim CTO

Real Life Trading UK and Millicent Investors

May 2021

Current part-time duty. Build tech infrastructure and provide consultancy in a financial education business (Real Life Trading UK) and a private equity, mergers and acquisition firm (Millicent investors).

MAIN PROJECTS

Designing and developing business customer infrastructure

- Automate customer on-boarding, user authentication, economic news gathering (scraping), trading tools etc. for Real Life Trading UK.
- 2-tier system favoring portability and cost, event-driven, REST API based, SQLite.
- Source unavailable as it is commercially used.

Developing automated trading platform (see [repo](#))

- A Flask server that receives Webhooks and executes trading orders via REST API on brokers including Alpaca and Binance.
- Currently used in Real Life Trading UK.

SIDE PROJECTS

Research on transform stability of deep-learning models (on-going, see [repo](#))

- Proposing new metrics quantifying how stable a deep-learning model is under image transforms.
- Currently evaluating state-of-art CNNs and some exotic neural networks.

Training human-like trading behavior using reinforcement learning (on-going, see [repo](#))

- Turning stock market data into RL environment. Made to fit DeepMind's RL libraries (bsuite and acme).

RESEARCH SUMMARY

10 papers published on top international journals two of which rank A* and five of which rank A according to AustMS journal ranking. One of them is published in Math. Forum PI which enters top 3 according to rankings by impact factors in mathematics.

SKILLS

Python

C/C++

Tensorflow

Machine Learning

Deep Learning

Reinforcement Learning

Academic Writing

Project Leadership

LANGUAGES

- Native or Professional: Chinese Mandarin, English
- Independent: German, French

EDUCATION

PhD Mathematics

University of Utah, UT, USA

B.S. Mathematics

Zhejiang University, Zhejiang, China