HAOTIAN LI

(852)65586981, haotian-li.com, haotian.li@connect.ust.hk, liht1996@live.com

EDUCATION

The Hong Kong University of Science and Technology, Hong Kong, China

08/2020-Present

09/2015-05/2019

 $\mathit{Ph.D}$ in Computer Science and Engineering, $\mathit{supervised}$ by $\mathit{Prof.}$ Huamin Qu

The Hong Kong University of Science and Technology, Hong Kong, China

GPA: 3.737/4.300 (Top 10%)

B.Eng (First Class Honors) in Computer Engineering Minor in Business & Big Data Technology

Peking University, Beijing, China

07/2017

The University of British Columbia, Vancouver, Canada

01/2018-04/2018

RESEARCH AND PROJECT EXPERIENCE

Advanced Quantitative Trading System with Text Mining in Final Year Project

06/2018-05/2019

- · Built models for training agents to perform automatic quantitative stock trading with news and price data
- Implemented Deep Recurrent Q-Network with Text Mining model with TensorFlow
- Achieved satisfactory performance on cumulative profits and was highly appreciated by the supervisor
- Supervised by Prof. Dik-Lun LEE, Department of Computer Science and Engineering, HKUST

Advanced Indoor Localization System with iBeacons for MTR

06/2018-01/2019

- Developed Android application used for collecting and processing data
- Focused on data structure, data processing and several different localization algorithms on mobile platforms
- Supervised by Prof. Shueng-Han Gary CHAN, Department of Computer Science and Engineering, HKUST

"PreserVis" of IEEE VAST Challenge 2017

05/2017-07/2017

- Developed a data visualization system for various types of data
- Achieved Multi-Challenge Award for Compelling Synthesis of Information
- Presented poster and gave a presentation on VAST Challenge 2017 Workshop, IEEE VIS 2017
- Supervised by Prof. Huamin QU, Department of Computer Science and Engineering, HKUST

COMPETITION EXPERIENCE

${\it Prediction\ of\ users' purchase\ dates\ of\ China\ Big\ Data\ Algorithm\ Competition}$

06/2018

- Predicted users' possibility and dates of purchase by actions and information of users
- Final result: Stage A: 33/739(Total teams), Stage B: 17/137(Total teams)
- Main libraries used: Numpy, Pandas, Scikit-learn, LightGBM, XGBoost

WORKING AND INTERNSHIP EXPERIENCE

Research Assistant at VisLab HKUST, Hong Kong

08/2019-08/2020

- Research on advanced algorithm (e.g., GNN) in analysis of students' performance on E-Learning platforms
- Main libraries used: Scikit-learn, DGL, PyTorch, Matplotlib, Numpy

Application Developer at Wealth Management Cube Limited, Hong Kong

06/2019-08/2019

- Designed and developed internal production system with MongoDB, React.js and Spring Boot
- Developed web-based platform offered to the wealth management industry with Spring and JSP

Data Analyst at China Unicom Network Technology Research Institute, Beijing, China

05/2018-06/2018

- Applied advanced algorithms to find features for analyzing big data in telecom industry
- Used distributed systems (e.g. Hadoop) for data storage

PUBLICATIONS

- Haotian Li, Huan Wei, Yong Wang, Yangqiu Song and Huamin Qu. Peer-inspired Student Performance Prediction in Interactive Online Question Pools with Graph Neural Network. To appear in the 29th ACM International Conference on Information and Knowledge Management (CIKM20).
- Zezheng Feng, **Haotian Li**, Wei Zeng, Shuang-Hua Yang and Huamin Qu. Topology Density Map for Urban Data Visualization and Analysis. To appear in IEEE Transactions on Visualization and Computer Graphics (VAST20).
- Huan Wei, **Haotian Li**, Meng Xia, Yong Wang and Huamin Qu. Predicting Student Performance in Interactive Online Question Pools Using Mouse Interaction Features. In the 10th International Learning Analytics & Knowledge Conference (LAK20).
- Ka Wing Tsang, **Haotian Li**, Fuk Ming Lam, Yifan Mu, Yong Wang, Huamin Qu. TradAO: A Visual Analytics System for Trading Algorithm Optimization. To appear in 2020 IEEE Conference on Visual Analytics Science and Technology (VAST20).

• Qiao Gu, Hang Yin, Lian Chen, **Haotian Li**, Chengzhong Liu, Xuanwu Yue and Huamin Qu. PreserVis, a Visual Analytic System for Traffic and Pollution Patterns - Multi-Challenge Award for Compelling Synthesis of Information. In 2017 IEEE Conference on Visual Analytics Science and Technology (VAST17).

VOLUNTEER & EXTRACURRICULAR EXPERIENCE

General Secretary at Film Society, HKUSTSU, Hong Kong

03/2016-03/2017

- Assisted the work of President and organized functions for more than 1000 members
- Improved time planning and communication skills with team members and officers

Team Guide at 57th International Mathematic Olympiad, Hong Kong

07/2016

- Helped Organising Committee hold activities including exploring Hong Kong and closing ceremony
- Guided the Brazilian team and helped with daily affairs

TECHNICAL SKILLS

- Programming Language: Python (Pandas, Sci-kit Learn, NumPy, PyTorch), JavaScript (React.js, D3.js, SheetJS, Tabulator, ¡Query, Node.js), Java (Android, Spring, Spring Boot), Spark, MATLAB, R, SQL
- Other Software: Tableau, Microsoft Office

AWARDS & SCHOLARSHIPS

- Student Travel Grant, ACM SIGIR, 2020
- Young Talent Award, BOCHK Hackathon, 2019
- **Dean's List** from **HKUST**, Fall, Spring, 2015-2016, Fall, Spring 2018-2019
- University's Scholarship Scheme for Continuing Undergraduate Students from HKUST, 2017, 2018, 2019
- Overseas Learning Experience Scholarship from School of Engineering, HKUST, 2018
- Students' Academic Excellence from HKUST, 2017
- Multi-Challenge Award, IEEE VAST Challenge from VAST Challenge Committee, 2017
- University Scholarship from HKUST, 2015
- 2nd Award in National Physics Olympics, 2014