HAOTIAN LI

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EDUCATION

The Hong Kong University of Science and Technology, *Hong Kong, China* 08/2020-Present
Ph.D in **Computer Science and Engineering,** *supervised by Prof. Huamin Qu* *GPA:* 4.200/4.300

The Hong Kong University of Science and Technology, *Hong Kong, China* 09/2015-05/2019
B.Eng (***First Class Honors***) in **Computer Engineering** *GPA:* 3.737/4.300 (Top 10%)
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

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**, Min Xu, Yong Wang, Huan Wei and Huamin Qu. A Visual Analytics Approach to Facilitate Proctoring of Online Exams. Accepted to the 2021 CHI Conference on Human Factors in Computing Systems (CHI21).
- **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. 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, jQuery, 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