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*

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**, 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).
- 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
- *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