Haotian Li
Ph.D Student, VisLab HKUST

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🎓 EDUCATION

Present September 2020	**Ph.D Student, Hong Kong University of Science and Technology, Hong Kong, China** ❯ Research interest : Data Visualization, Visual Analytics, Data Mining, E-learning ❯ Supervised by Prof. Huamin Qu, Department of Computer Science and Engineering, HKUST
June 2019 September 2015	**B.Eng (First Class Honors), Hong Kong University of Science and Technology, Hong Kong, China** ❯ Major in Computer Engineering ❯ Minors in Business and Big Data Technology
Spring 2018	Exchange Student, University of British Columbia, Vancouver, Canada
July 2017	Exchange Student, Peking University, Beijing, China

💼 EXPERIENCE

September 2021 March 2021	Visiting Research Student, Singapore Management University, Singapore ❯ Research on knowledge graph-based automatic visualization recommendation ❯ Participate in research projects on crowdfunding and sea freight ❯ Supervised by Prof. Yong Wang, School of Computing and Information Systems, SMU
August 2020 August 2019	Research Assistant, Hong Kong University of Science and Technology, Hong Kong, China ❯ Research on advanced algorithm in analysis of students' performance on E-Learning platforms ❯ Supervised by Prof. Huamin QU, Department of Computer Science and Engineering, HKUST
August 2019 June 2019	Application Developer, Wealth Management Cube Limited, Hong Kong, China ❯ Designed and developed internal production system ❯ Developed web-based platform offered to the wealth management industry

🖥 PROJECT

Personalized Online Learning Path Recommendation — 2020-Present
❯ Design the workflow of personalized learning path recommendation with industrial collaborators
❯ Deploy the GNN-based student performance prediction and recommendation model

An Open Learning Design, Data Analytics and Visualization Framework for E-Learning — 2019-2020
❯ Design and implement interactive visual analytics systems for analyzing students' mouse movements and head poses
❯ Build state-of-the-art student performance prediction methods with students' interaction data and graph neural network

Advanced Quantitative Trading System with Text Mining — 2018-2019
❯ Apply reinforcement learning to perform automatic quantitative stock trading with news and price data
❯ Implement Deep Recurrent Q-Network with Text Mining models

Advanced Indoor Localization System with iBeacons for MTR — 2018-2019
❯ Develop Android application used for collecting and processing data sent by iBeacons
❯ Implement indoor localization algorithms on mobile platforms

📖 PUBLICATION

[8] **Haotian Li**, Yong Wang, Songheng Zhang, Yangqiu Song, Huamin Qu. 2021. KG4Vis : A Knowledge Graph-Based Approach for Visualization Recommendation. *IEEE Transactions on Visualization and Computer Graphics (Proceedings of VIS '21). To Appear*.

[7] **Haotian Li**, Min Xu, Yong Wang, Huan Wei, and Huamin Qu. 2021. A Visual Analytics Approach to Facilitate the Proctoring of Online Exams. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI '21)*.

[6] Lin-Ping Yuan, Wei Zeng, Siwei Fu, Zhiliang Zeng, **Haotian Li**, Chi-Wing Fu, Huamin Qu. 2021. Deep Colormap Extraction from Visualizations. *IEEE Transactions on Visualization and Computer Graphics*.

[5] **Haotian Li**, Huan Wei, Yong Wang, Yangqiu Song, Huamin Qu. 2020. Peer-inspired Student Performance Prediction in Interactive Online Question Pools with Graph Neural Network. In *Proceedings of the 29th ACM International Conference on Information and Knowledge Management (CIKM '20)*.

[4] Zezheng Feng, **Haotian Li**, Wei Zeng, Shuang-Hua Yang, Huamin Qu. 2021. Topology Density Map for Urban Data Visualization and Analysis. *IEEE Transactions on Visualization and Computer Graphics (Proceedings of VAST '20)*.

[3] Huan Wei, **Haotian Li**, Meng Xia, Yong Wang, Huamin Qu. 2020. Predicting Student Performance in Interactive Online Question Pools Using Mouse Interaction Features. In *Proceedings of the 10th International Conference on Learning Analytics & Knowledge (LAK '20)*.

[2] Ka Wing Tsang, **Haotian Li**, Fuk Ming Lam, Yifan Mu, Yong Wang, Huamin Qu. 2020. TradAO : A Visual Analytics System for Trading Algorithm Optimization. In *Proceedings of the 2020 IEEE Visualization Conference (VIS '20)*.

[1] Qiao Gu, Hang Yin, Lian Chen, **Haotian Li**, Chengzhong Liu, Xuanwu Yue, Huamin Qu. PreserVis, a Visual Analytic System for Traffic and Pollution Patterns - Multi-Challenge Award for Compelling Synthesis of Information. 2017. In *Proceedings of the 2017 IEEE Conference on Visual Analytics Science and Technology (VAST '17)*.

TEACHING

Spring 2021	**Teaching Assistant**, COMP 6311E - High Dimensional Data Management and Analytics, HKUST
Spring 2021	**Teaching Assistant**, MSBD 6000J - Spatial and Multimedia Databases, HKUST

AWARD

2020-2021	Postgraduate Studentship, HKUST
2020	Student Travel Grant, ACM SIGIR
2019	Young Talent Award, BOCHK Hackathon
2018-2019	University's Scholarship Scheme for Continuing Undergraduate Students, HKUST
2018-2019	Dean's List, HKUST
2017-2018	Overseas Learning Experience Scholarship, HKUST
2017-2018	University's Scholarship Scheme for Continuing Undergraduate Students, HKUST
2017	Multi-Challenge Award, IEEE VAST Challenge
2017	Students' Academic Excellence, HKUST
2016-2017	University's Scholarship Scheme for Continuing Undergraduate Students, HKUST
2015-2016	Dean's List, HKUST
2015-2016	University Scholarship, HKUST
2014	Second Award, National Physics Olympics

SERVICE

2021	Program Committee Member : CIKM
2021	Reviewer : IEEE VIS, ChinaVis

TALK

June 2021	A Visual Analytics Approach to Facilitate the Proctoring of Online Exams, Best of CHI2021, Mumbai ACM SIGCHI Chapter & IIT Bombay ACM SIGCHI Student Chapter
May 2021	A Visual Analytics Approach to Facilitate the Proctoring of Online Exams, CHI '21, ACM SIGCHI
October 2020	Peer-inspired Student Performance Prediction in Interactive Online Question Pools with Graph Neural Network, CIKM '20, ACM SIGIR & SIGWEB