

ZHUTIAN CHEN · CURRICULUM VITAE

✉ zhutian.chen@connect.ust.hk • 🌐 chenzhutian.org • Last Updated Feb. 05th, 2020

RESEARCH INTERESTS

Data Visualization, Human-Computer Interaction, Machine Learning, Augmented Reality.

My research seeks to enable futuristic data analysis and communication – powered by Artificial Intelligence and presented by Augmented Reality (AR). To this end, I study the ways to leverage machine learning to assist human in creating and interacting with data visualizations in AR, as well as leveraging visualizations to assist human in understanding and diagnosing machine learning models.

EDUCATION

- 09/2015 - Present **Hong Kong University of Science & Technology**, Kowloon, Hong Kong
Ph.D. Candidate in Computer Science & Engineering
Advisor: Huamin Qu
Awarded Hong Kong Ph.D. Fellowship
- 09/2011 - 07/2015 **South China University of Technology**, Guangzhou, China
B.S. in Software Engineering
Advisor: Yi Cai
Awarded Pacemaker to Merit Student, the Highest Honor (top 0.01%)

POSITIONS

- 09/2015 - Present **Hong Kong University of Science & Technology**, Kowloon, Hong Kong
Graduate Researcher - VISLab
Advisor: Huamin Qu
- 09/2019 - 12/2019 **The University of Edinburgh**, Edinburgh, UK
Research Visiting Student - Design Informatics
Advisor: Benjamin Bach
- 08/2017 - 11/2017 **ByteDance**, Beijing, China
Software Engineering Intern - Big Data Platform Group
Advisor: Liang Tang
- 06/2017 - 08/2017 **FIT Future Information Technology**, Beijing, China
Research Intern - SLAM Group
Advisor: Kaidi Zhou
- Spring/2015, 2017 **State Key Lab of CAD&CG**, Hangzhou, China
Research Assistant - ZJU VIS
Advisor: Yingcai Wu
- 06/2014 - 01/2015 **Microsoft Research Asia**, Beijing, China
Research Intern - Internet Graphics Group
Advisor: Yingcai Wu

PEER REVIEWED PUBLICATIONS

- 2019 C7 **Zhutian Chen**, Wai Tong, Qianwen Wang, Benjamin Bach, and Huamin Qu. “Augmenting Static Visualizations with PapARVis Designer.” *ACM Conference on Human Factors in Computing Systems (CHI’20)*. – 24% acceptance rate, 10 pages
- C5, J5 **Zhutian Chen**, Yun Wang, Qianwen Wang, Yong Wang, and Huamin Qu. “Towards Automated Infographic Design: Deep Learning-based Auto-Extraction of Extensible Timeline.” *IEEE Transactions on Visualization and Computer Graphics (InfoVis’19)*. – 24% acceptance rate, 10 pages
- C4, J4 **Zhutian Chen**, Wei Zeng, Zhiguang Yang, Lingyun Yu, Chi-Wing Fu, and Huamin Qu. “LassoNet: Deep Lasso-Selection of 3D Point Clouds.” *IEEE Transactions on Visualization and Computer Graphics (SciVis’19)*. – 25% acceptance rate, 10 pages
- 2018 J3 **Zhutian Chen**, Yijia Su, Yifang Wang, Qianwen Wang, Huamin Qu, Yingcai Wu. “MARVisT: Authoring Glyph-based Visualization in Mobile Augmented Reality.” *IEEE Transactions on Visualization and Computer Graphics (TVCG)*.
- 2017 J2 **Zhutian Chen**, Yifang Wang, Tianchen Sun, Xiang Gao, Wei Chen, Zhigeng Pan, Huamin Qu, Yingcai Wu. “Exploring the Design Space of Immersive Urban Analytics.” *Journal of Visual Informatics (JVI)*.
- J1 Yingcai Wu, **Zhutian Chen**, Guodao Sun, Xiao Xie, Nan Cao, Shixia Liu, Weiwei Cui. “StreamExplorer: A Multi-Stage System for Visually Exploring Events in Social Streams.” *IEEE Transactions on Visualization and Computer Graphics (TVCG)*.
- W1 **Zhutian Chen**, Huamin Qu, Yingcai Wu. “Immersive Urban Analytics through Exploded Views.” *IEEE VIS 2017 Workshop on Immersive Analytics*.
- 2016 C3 Yun Wang, **Zhutian Chen**, Quan Li, Xiaojuan Ma, Qiong Luo, Huamin Qu. “Animated Narrative Visualization for Video Clickstream Data.” *ACM SIGGRAPH ASIA Visualization Symposium (SIGGRAPH ASIA)*.
- C2 Mingqian Zhao, **Zhutian Chen**, Ke Lu, Chaoran Li, Huamin Qu, Xiaojuan Ma. “Blossom: Design of a Tangible Interface for Improving Intergenerational Communication for the Elderly.” *ACM Interactive Technology and Ageing Populations (ITAP)*.
- C1 Yun Wang, Tongshuang Wu, **Zhutian Chen**, Qiong Luo, Huamin Qu. “STAC: Enhancing Stacked Graphs for Time Series Analysis.” *IEEE Pacific Visualization Symposium (PacificVis)*.

AWARDS AND HONORS

- 2019 - 2020 **Overseas Research Award**
Hong Kong University of Science & Technology
- 2019 - 2020 **Research Travel Grant**
Hong Kong University of Science & Technology

- 2018 - 2019 **Research Travel Grant**
Hong Kong University of Science & Technology
- 08/2016 **First Prize of the Design Thinking**
China Academy of Art, Hong Kong University of Science & Technology
- 2015 - 2019 **Hong Kong Ph.D. Fellowship (HKPFS)**
Research Grants Council of Hong Kong
- 01/2015 **Award of Excellence**
Microsoft Research Asia
- 2013 - 2014 **Pacemaker to Merit Student**
South China University of Technology, the highest honor (top 0.1%)
- 2013 - 2014 **National Scholarship**
Ministry of Education of the People's Republic of China
- 04/2014 **Meritorious Winner of Interdisciplinary Contest in Modeling**
Consortium for Mathematics and Its Applications, USA
- 2013 - 2014 **Tencent Technology Excellence Scholarship**
Tencent Holdings Limited
- 2012 - 2013 **National Scholarship**
Ministry of Education of the People's Republic of China
- 2011 - 2012 **National Scholarship for Encouragement**
Ministry of Education of the People's Republic of China

INVITED TALKS

- Towards Futuristic Visual StoryTelling: Authoring Data-Driven Infographics in Augmented Reality**
- 01/2020 Shandong University, Qingdao, China
12/2019 Ant Financial, Hangzhou, China
11/2019 The University of Edinburgh, Edinburgh, UK
07/2019 Zhejiang Lab, Hangzhou, China
- Towards Automated Infographic Design: Deep Learning-based Auto-Extraction of Extensible Timeline**
- 10/2019 IEEE VIS'19, Vancouver, Canada
- MARVisT: Authoring Glyph-based Visualization in Mobile Augmented Reality**
- 10/2019 IEEE VIS'19, Vancouver, Canada
- LassoNet: Deep Lasso-Selection of 3D Point Clouds**
- 10/2019 IEEE VIS'19, Vancouver, Canada
- InfoVis in Augmented Reality**
- 10/2019 ARVis Meet-up@Microsoft, Vancouver, Canada
- StreamExplorer: A Multi-Stage System for Visually Exploring Events in Social Streams**

- 10/2018 IEEE VIS'18, Berlin, Germany
- 12/2016 **Animated Narrative Visualization for Video Clickstream Data**
Visualization Symposium at ACM SIGGRAPH ASIA'16, Macao, China

TEACHING

TEACHING

- Fall/2018 **Teaching Assistant**, COMP2711: Discrete Mathematical Tools for Computer Science, HKUST.
- Spring/2018 **Teaching Assistant**, COMP4901f: Data Visualization, HKUST.

MENTORING

- Summer/2019 Wai Tong (M.Phil. at HKUST): [C7].
- Spring/2019 Zhiguang Yang (M.S. at SIAT, Chinese Academy of Sciences): [C4, J4].
- 2017 - 2018 Yifang Wang (Ph.D. at HKUST): [J3, J2].
- Spring/2017 Tianchen Sun (B.S. at ZJU, now Ph.D. at UC Davis with Kwan-Liu Ma): [J2].
- Spring/2017 Xiang Gao (M.S. at ZJU): [J2].
- 2016 - 2017 Zhen Li (M.Phil at HKUST): E-learning Project.
- 2016 - 2017 Shaozu Cao (Ph.D. at HKUST): E-learning Project.

SERVICE

- 2020 **Paper Reviewer**, CG&A (IEEE Computer Graphics and Applications)
- 2020 **Paper Reviewer**, CHI (ACM Conference on Human Factors in Computing Systems)
- 2019 **Paper Reviewer**, PacificVis
- 2019 **Paper Reviewer**, TOG (ACM Transactions on Graphics)
- 2019 **Paper Reviewer**, VRST (ACM Virtual Reality Software and Technology)
- 2019 **Paper Reviewer**, ChinaVis
- 2019 **Paper Reviewer**, VIS (IEEE Visualization Conference)
- 2018 **Paper Reviewer**, VIS (IEEE Visualization Conference)

REFERENCE

Huamin Qu

Professor of Computer Science
Hong Kong University of Science & Technology
huamin@cse.ust.hk

Yingcai Wu

ZJU100 Young Professor of Computer Science
Zhejiang University
ycwu@zju.edu.cn

Benjamin Bach

Lecturer of Design Informatics and Visualization
the University of Edinburgh
bbach@inf.ed.ac.uk