Ke Xu (Luke)

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EDUCATION

B.E. in Electronic Science and Technology, **Nanjing University**, China 2011 – 2015

- Ranking: 1/217, Thesis: FPGA-based Design of FFT & FIR

Ph.D. in Electronic and Computer Engineering, **HKUST**, Hong Kong 2015 – Now

- Research Interest: Visual Analytics, Anomaly Detection, Healthcare

HONORS & AWARDS

Best Paper Honorable Mention Award, **ACM CHI Conference** 2017, 2018
Excellent Student of Nanjing University, **Nanjing University** 2015
First Prize of Red Sun Scholarship, (for **30** of **students** in **Nanjing University**) 2014
Baosteel Scholarship, (For **2 of Sophomores** in **Nanjing University**) 2013
National Scholarship, **Ministry of Education of the People's Republic of China** 2012

PUBLICATIONS

[C6, J4] Ke Xu, Yun Wang, Leni Yang, Yifang Wang, Bo Qiao, Qin Si, Yong Xu, Haidong Zhang, Huamin Qu. **CloudDet: Interactive Visual Analysis of Anomalous Performances in Cloud Computing Systems.** IEEE Transactions on Visualization and Computer Graphics (VAST'19: Proceedings of the IEEE Visual Analytics Science and Technology), 2019.

[C5, J3] Yun Wang, Zhida Sun, Haidong Zhang, Weiwei Cui, Ke Xu, Xiaojuan Ma, Dingmei Zhang. **DataShot: Automatic Generation of Fact Sheet from Tabular Data.** IEEE Transactions on Visualization and Computer Graphics (InfoVis'19: Proceedings of the IEEE Information Visualization), 2019.

[C4] Xing Mu, Ke Xu, Qing Chen, Fan Du, Yun Wang, Huamin Qu. **MOOCad: Visual Analysis of Anomalous Learning Activities in Massive Open Online Courses.** EuroVis'19: Proceedings of The Eurographics Conference on Visualization, 2019.

[C3, J2] Ke Xu, Meng Xia, Xing Mu, Yun Wang, Nan Cao. **EnsembleLens: Ensemble-based Visual Exploration of Anomaly Detection Algorithms with Multidimensional Data.** IEEE Transactions on Visualization and Computer Graphics (VAST'18: Proceedings of the IEEE Visual Analytics Science and Technology), 2018.

[C2] Ke Xu, Shunan Guo, Nan Cao, David Gotz, Aiwen Xu, Huamin Qu, Zhenjie Yao, Yixin Chen. **ECGLens: Interactive Visual Exploration of Large Scale ECG Data for Arrhythmia Detection.** CHI'18: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, 2018 *(Best Paper Honorable Mention). [25.7% acceptance rate (666/2592)]*

[C1, J1] Shunan Guo, Ke Xu, Rongwen Zhao, David Gotz, Hongyuan Zha, Nan Cao. **EventThread: Visual Summarization and Stage Analysis of Event Sequence Data.** IEEE Transactions on Visualization and Computer Graphics (VAST'18: Proceedings of the IEEE Visual Analytics Science and Technology), 2018.

RESEARCH EXPERIENCE

Visiting Scholar, **Harvard University,** Boston, U.S. May 2019 – Aug 2019

- Working on the visualization part for a biomedical project for enhancing Assisted Reproductive Technologies

Intern, **Microsoft Research Asia,** Beijing, China Jan 2019 – May 2019

- Developed CloudDet, an interactive system for visually analyzing anomalous performances in large cloud computing system
- Cooperated in designing DataShot, a visualization system for automatically generate the poster with sheet data

Ph.D. Candidate, **HKUST,** Hong Kong Sept 2015 – Now

- Developed EnsembleLens, a visual system to evaluate different anomaly detection algorithms based on ensemble analysis

- Conducted data visualization projects for analyzing Hong Kong weather, elderly wandering and asset management
- Designed the digital circuit part for a 10Gbps Phase Interpolated based half-rate CDR in 65nm CMOS

Visiting Student, **Tongji University**, Shanghai, China Feb 2017 – Sept 2017

- Designed ECGLens, a visualization tool for Arrhythmia Detection with large scale ECG data
- Developed EventThread, a visual analytics system for summarizing event sequence data

Research Assistant, **Nanjing University,** Nanjing, China Dec 2014 – Apr 2015

- Facilitated a wideband filter module and FFT-based frequency estimation module by *Vivado HLS*

*Summer Intern***, McGill University,** Montreal, Canada Jun 2014 – Sept 2014

- Provided a model to predict the screening-limited response of nanobiosensors
- Analyzed the reasons for some experimental results that were not well explained within the consistent theoretical framework

Project Leader, **Nanjing University**, Nanjing, China Jun 2013 – May 2014

- Lead "Microphone Array Acoustic Localization and Speech Enhancement", a National Innovation Training Program
- Created and arranged the work schedule for our project team