Weixi Gu

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Education

- **University of California, Berkeley.** — California, USA
  Visiting Phd at EECS. Advisor: Prof. Costas J. Spanos — *Oct. 2016 – Present*
- **Tsinghua University** — Beijing, P.R.China
  Phd Candidate at Tsinghua-Berkeley Shenzhen Institute (TBSI). Advisor: Prof. Lin Zhang — *Sep. 2015 – Present*
- **Tsinghua University** — Beijing, P.R.China
  Master at School of Software. Advisor: Prof. Yunhao Liu — *Sep. 2012 – Jul. 2015*
- **Shanghai Jiaotong University** — Shanghai, P.R.China
  Bachelor at School of Information Security — *Aug. 2008 – Jul. 2012*

Research Interest

- **Analytics of Mobile Data**: Designing and building computational systems and frameworks for large-scale mobile data analytics, including human health/safety sensing and spatial-temporal data mining.
- **Machine Learning**: Developing deep learning and statistical methodology on high-dimensional data and dynamic feature engineering.

Academic Experience

- **Microsoft Research Asia** — Research Intern
  Wireless and Networking Group — *Oct. 2014 - Mar. 2015*
  - **Individual Behavior Learning**: Designed and implemented an adaptive mobile computational platform for individual behavior learning.
- **Microsoft Research Asia** — Research Intern
  Big Data Mining Group — *Jul. 2013 - Aug. 2014*
  - **Co-reference Resolution**: Designed Co-reference resolution algorithm for Wikipedia database. Ameliorated softmax model to improve the accuracy of the Co-reference algorithms
  - **Deep Reading Robot**: Setup a deep reading robot to extract commonsense and understand knowledge on web-scale articles automatically.
- **Baidu Inc.** — Research Intern
  Page Search Group — *Jun. 2012 - Aug. 2012*
  - **Web Search and Online Advertising**: The inherent structure mining about user online searching behaviors.
- **Ebay Inc.** — Research Intern
  User Recommendation Group — *Apr. 2012 - Jun. 2012*
  - **Group Recommendation**: Optimized the dynamic group recommendation algorithm by Pareto Improvement.

Award (Selected)

- 2017, National Graduate Scholarship. — Top 1% in TBSI, Tsinghua University.
- 2016, National Graduate Scholarship. — Top 1% in TBSI, Tsinghua University.
- 2016, Best Paper Runner-Up Award, Mobiquitous. — Top 2% in accepted papers.
- 2016, TBSI Outstanding Scholarship. — Top 1% in TBSI, Tsinghua University.
- 2015, Excellent Master Dissertation, Tsinghua University. — Top 1% in School of Software, Tsinghua University.
- 2015, Tomorrow Star of Microsoft Research Asia. — Top 3% in Microsoft Research Asia Internship Program.
- 2014, National Graduate Scholarship. — Top 1% in School of Software, Tsinghua University.
- 2014, Best Paper Award, IEEE Trustcom. — Top 1% in accepted papers.

Publication (Selected)

- **Journal**:
  1. SugarMate: Non-intrusive Blood Glucose Monitoring with Smartphones. Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies 1.3 (2017)
  Weixi Gu, Yuxun Zhou, Zimu Zhou, Xi Liu, Han Zou, Pei Zhang, Costas J. Spanos, and Lin Zhang.

  2. Measuring fine-grained metro interchange time via smartphones. Transportation Research Part C: Emerging Technologies 81 (2017)
  Weixi Gu, Kai Zhang, Zimu Zhou, Ming Jin, Yuxun Zhou, Xi Liu, Costas J. Spanos, Zuo-Jun Max Shen, Wei-Hua Lin, and Lin Zhang.

  3. Sleep hunter: Towards fine grained sleep stage tracking with smartphones. IEEE Transactions on Mobile Computing 15, no. 6 (2016)
  Weixi Gu,Longfei Shangguan, Zheng Yang, and Yunhao Liu.

  4. Sherlock: Micro-environment sensing for smartphones IEEE Transactions on Mobile Computing 15, no. 6 (2016)
  Yang, Zheng, Longfei Shangguan, **Weixi Gu**, Zimu Zhou, Chenshu Wu, and Yunhao Liu.

- **Conference**:
  1. BikeMate: Bike Riding Behavior Monitoring with Smartphones. In MobiQuitous, 2017.
  Weixi Gu, Zimu Zhou, Yuxun Zhou, Han Zou, Yunxin Liu, Costas J. Spanos and Lin Zhang.

  2. MetroEye: Smart Tracking Your Metro Trips Underground. In MobiQuitous, 2016. **Best Paper Runner-up**
  Weixi Gu, Ming Jin, Zimu Zhou, Costas J. Spanos, and Lin Zhang.

  3. Intelligent sleep stage mining service with smartphones. In Ubicomp, 2014
  Weixi Gu, Zheng Yang, Longfei Shangguan, Wei Sun, Kun Jin, and Yunhao Liu.

  4.Toauth: Towards automatic near field authentication for smartphones. In Trust, Security and Privacy in Computing and Communications (TrustCom), 2014. **Best Paper Award**
  Weixi Gu, Zheng Yang, Longfei Shangguan, Xiaoyu Ji, and Yiyang Zhao.

  5.Non-parametric outliers detection in multiple time series. A case study: Power grid data analysis. In AAAI, 2018
  Yuxun Zhou, Arghandeh Reza, Han Zou, and **Weixi Gu**.

  6. WiFi-based human identication via convex tensor shapelet learning. In AAAI, 2018
  Han Zou, Yuxun Zhou, Jianfei Yang, **Weixi Gu**, Lihua Xie, and Spanos Costas.

- **Posters and PhD Forum Abstracts**:
  1. Non-intrusive blood glucose monitor by multi-task deep learning: PhD forum abstract. In Proceedings of the 16th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN), ACM, 2017.
  Weixi Gu

  2. Group recommendation: by mining users' check-in behaviors. In Ubicomp, 2017.
  Miao He, **Weixi Gu**, and Ying Kong.

  3. BikeSafe: bicycle behavior monitoring via smartphones. In Ubicomp, 2017.
  Weixi Gu, Yunxin Liu, Yuxun Zhou, Zimu Zhou, Costas J. Spanos, and Lin Zhang.

  4. MetroEye: towards fine-grained passenger tracking underground. In Ubicomp, 2016.
  Weixi Gu, Ming Jin, Zimu Zhou, Costas J. Spanos, and Lin Zhang.

- **Submitted and Working Paper**:
  1. Adaptive Temporal Feature Selection and Online Learning By Causality.
  Weixi Gu, Costas J. Spanos, and Lin Zhang.

  2. Blood Glucose Concentration Prediction with Multi-Time-Series Deep Learning.
  Weixi Gu, Costas J. Spanos and Lin Zhang.

Invited Academic Talks

1. Adaptive Temporal Feature Selection and Online Learning By Causality.
University of California, Berkeley. Oct. 2017

2. Modelling Inherent Data Structure of Blood Glucose Dynamics.
Department of Electrical and Computer Engineering, Stony Brook University. May 2017

3. SugarMate: Non-intrusive Blood Glucose Monitoring with Smartphones.
ECE departments, Carnegie Mellon University, Aug. 2017