Hao He

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EDUCATION

Massachusetts Institute of Technology, Cambridge, MA — 2017 - present
Ph.D. Candidate
• Advisor: Prof. Dina Katabi

Peking University, China — 2013 - 2017
B.S., Computer Science
• Major GPA: 3.93/4.00 (rank 1st)

EXPERIENCE

Research Assistant, MIT — Sep 2017 to Present
Advisor: Prof. Dina Katabi
Project: Machine Learning Method in Radio Frequency Sensing for Health Care
• Develope RF based fall detection system using deep learning architecture.
• Develope RF based multiple people breathing monitoring system.
• Analyze properties of a framewrok for health states prediction via EEG signals.

Research Intern, Microsoft Research — Sep 2016 to Aug 2017
Mentor: David Wipf
Project: Deep Learning Based Sparse Bayesian Learning Method
• Develope noval deep learning architectures that mimic and outperform Sparse Bayesian Learning algorithm.
Mentor: Stephen Lin
Project: White Box Photo Post-Processing Framework
• Desige experiments to evalutate our system performance on album style learning, photo quality enhancing, filter reverse engneering.

Research Intern, Stanford University — June 2016 to Sep 2016
Advisor: Leonidas J. Guibas
Project: 3D Shape Estimation via Single Image
• Desige Genrative Adersrial Networks framwork to learning 3D shape distribution condition on singe observation.

PUBLICATION

• **Hao He**, Bo Xin, Satoshi Ikehata, David Wipf, "From Bayesian Sparsity to Gated Recurrent Nets", Conference on Neural Information Processing Systems (NIPS) 2017. *Oral presentation*
• Yuanming Hu, **Hao He**, Chenxi Xu, Baoyuan Wang, Stephen Lin, "Exposure: A White-Box Photo Post-Processing Framework", ACM Transactions on Graphics.
• Shichao Yue, **Hao He**, Dina Katabi, "Extracting Multi-Person Respiration from Entangled RF Signals.". *(in submission to ubicomp 2018)*
• **Hao He***, Yonglong Tian*, Guanghe Lee*, Dina Katabi, Chenyu Xu, "RF-Based Fall Monitoring Using Convolutional Neural Networks". *(in submission to ubicomp 2018)*
• Hao Wang, Chengzhi Mao, **Hao He**, Dina Katabi, Tommi jaakkola, "Hierarchical Bidirectional Inference Networks for Health Profiling.". *(in submission to UAI 2018)*

COURSES

• System: Computer Network (6.892) (A+)
• AI: Algorithm for Inference (6.438) (A), Information and Inference (6.437) (taking), Bayesian Modelling and Inference (6.882) (taking).

AWARDS

• National Scholarship for Excellent Academic Performance, China (highest, twice)
• Arawana Scholarship for Excellent Academic Performance, Peking University
• ACM-ICPC 2015 Asia Regional Shenyang Site, Gold Medal
• ACM-ICPC 2014 Asia Regional Anshan Site, Gold Medal