Shuai Ma

Curriculum Vitae

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I am a third (final) year Master Degree candidate supervised by Prof. Feng Tian at ISCAS HCI Lab. My primary research focuses on Human-Computer Interaction. I have the passion to explore how to make current and future technologies more accessible for people to use. My past researches have investigated how AI supports Human-Computer Interaction, using machine learning, intelligent sensing technology, computer vision, natural language processing methods to help people with multiple tasks in their daily life, healthcare, online education, etc.
I will graduate in 2020 Summer and I am applying for a Ph.D. offer in HCI.

EDUCATION

2017–2020 **University of Chinese Academy of Sciences**, *School of Computer Science*.
Master of Computer Science and Technology, GPA Rank: $1^{st}/12$

2013–2017 **Harbin Institute of Technology**, *School of Computer Science*.
Bachelor of Software Engineering, GPA Rank: $4^{th}/150$

PUBLICATIONS

2019 [C.5] Qian Zhu*, **Shuai Ma***. What Did I Miss? Assisting User adaptive Missed Content Reviewing in MOOC Learning. In *Proc. UIST2019 Adjunct*. [PDF]

[C.4] Qian Zhu*, **Shuai Ma***, Cuixia Ma. Pre-screen: Assisting Material Screening in Early-stage of Video Editing. In *Proc. UIST2019 Adjunct*. [PDF]

[C.3] **Shuai Ma***, Zijun Wei*, Feng Tian, Xiangmin Fan, Jianming Zhang, Xiaohui Shen, Zhe Lin, Jin Huang, Radomir Mech, Dimitris Samaras, and Hongan Wang. SmartEye: Assisting Instant Photo Taking via Integrating User Preference with Deep View Proposal Network. In *Proc. CHI2019*. Honorable Mention Award [PDF]

2018 [C.2] Jing Gao, Feng Tian, Junjun Fan, Dakuo Wang, Xiangmin Fan, Yicheng Zhu, **Shuai Ma**, Jin Huang, and Hongan Wang. Implicit Detection of Motor Impairment in Parkinson's Disease from Everyday Smartphone Interactions. In *Proc. CHI2018 EA*. [PDF]

[C.1] Liuping Wang, Xiangmin Fan, Feng Tian, Lingjia Deng, **Shuai Ma**, Jin Huang, and Hongan Wang. mirrorU: Scaffolding Emotional Reflection via In-Situ Assessment and Interactive Feedback. In *Proc. CHI2018 EA*. [PDF]

For more information, please see my Google Scholar

EMPLOYMENT EXPERIENCE

2018.1–2018.3 **Netease Beijing R&D Center Youdao NLP Group,** A Rule-Based MT Model for Classical Chinese - Modern Chinese Translation

Built a dictionary of regular words in classical Chinese and developed a segmentation method based on RMM.

Built a phrase-based model for translation and got a BLEU score of 0.91 (unigram), 0.84 (bigram) and 0.71 (trigram).

2017.6 – 2017.8 **Alibaba Health Machine Learning Group,** Wave Form Recognition Model in Electrocardiogram (ECG) Signal

Implemented ECG recognition model proposed by Andrew Ng to detect P,Q,R,S,T wave in ECG signal. Model was trained on MIT-BIH dataset and tested on ECG data from real patient and got an average accuracy of 99.3%.

Designed a 5-dimensional feature vector and deployed agglomerative clustering method to merge similar clusters to recognise 4 kinds of noise (MA, WB, MI, ACI). The proposed method achieved Sn: 88.05%, Sp: 92.46%, Ac: 91.22% on real ECG dataset.

2016.9–2017.5 **Institute of Software, Chinese Academy of Sciences** **HCI Lab,** Evaluation of neurological function in mobile environment based on MRI

Explored the feasibility and accuracy of detecting motor impairment in early PD via sensing and analyzing users' common touch gestural interactions on smartphones.

Investigated four types of common gestures, including flick, drag, pinch, and handwriting gestures, and propose a set of features to capture PD motor signs.

PAPER REVIEWING

Conference ACM CHI '19, '20

Jornal CCF Transactions on Pervasive Computing and Interaction

AWARDS AND HONORS

2019 President Scholarship in Chinese Academy of Sciences (top 1%)

Excellent Paper Award at the Annual Academic Conference of ISCAS

ACM CHI 2019 Honorable Mention Award (1^{st} author) (top 5%)

Pacemaker of Merit Student of UCAS (top 1%)

First-Class Student Scholarship in UCAS (top 10%)

2018 National Scholarship for Graduate (top 1%)

Pacemaker of Merit Student of UCAS (top 1%)

Excellent Student Cadres of UCAS

First-Class Student Scholarship in UCAS (top 10%)

Excellent Communist Party Member of UCAS

2017 Excellence Award for Science Creation Program of Chinese Academy of Sciences

Special Scholarship for Undergraduates & the best 10 students of HIT (top 0.1%)

Excellent Graduates of Province (top 1%)

Excellent Graduates in Harbin Institute of Technology

Before 2016 National Scholarship for Undergraduate (top 1%)

Pacemaker of Merit Student of HIT (top 0.1%)

Pacemaker to Merit Student Cadres of HIT (top 0.1%)

Excellent Student Cadres of HIT (2014, 2015, 2016)

Merit Student of HIT (2014, 2015, 2016)

Excellent Student Scholarship in HIT (2014, 2015, 2016)

COMPETITIONS

2018 Huawei Cup Free Software Programming Competition ***Winner***

2018 Kaggle WAD Video Segmentation Challenge (held by CVPR 2018). Semantic Segmentation and Recognition of Road Vehicles ***Rank:*** $4^{th}/141\ teams$

2018 6^{th} Emotion Recognition in the Wild Challenge (EmotiW 2018, held by ICMI). Audio-video Emotion Recognition ***Rank:*** 13^{th}

2016 5^{th} National Marine Vehicle Design and Manufacturing Competition ***Winner***

2016 18^{th} National Robot Championship ***Winner*** $*3$

2015 *Tianchi* Big Data Competition-Sina Weibo Interactive Prediction ***Top*** 5%

PROGRAMMING

Languages I am proficient in C, C++, Java, Swift, C#, Python, and familiar with R, PHP, JavaScript

Tools & Platforms I master Tensorflow, Keras, Pytorch, Scikit-learn, Xgboost, MapReduce