

Zhang He

Objective: Software Engineer(Machine Learning/Backend/App)

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EDUCATION BACKGROUND

National University of Singapore (Director: Prof Chua Tat Seng) Junior Research Assistant in NEXT Research Centre	2015.04 - PRESENT
Wuhan University of Science and Technology Master of Computer Science and Technology	2013.09 - 2016.06
Wuhan University of Science and Technology Bachelor of Software Engineering	2009.09 - 2013.06

R&D EXPERIENCE

Topic Categorization and Representation of Health Community Generated Data Junior Research Assistant	2015.04 – 2015.10 @ NEXT Search Center, National University of Singapore
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- Address the categorization and representation problems in community-based health services
- Study on professional health provider released data
- Evaluate Naïve Bayes, KNN, Decision Tree and SVM on health data categorization
- Evaluate Term-based, Domain Specific and LDA-based methods on health data representation

"iBeautyGuru" Hybrid App Full Stack Engineer	2015.04 - 2015.09 @Singapore iBeautyGuru Pte., Ltd.
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- Maintain database in the app with MySQL
- Develop system APIs on the basis of Yii2.0 framework(PHP)
- Develop hybrid application on the basis of Ionic (HTML5/CSS3/AngularJS/Cordova)
- Analyze the reason of load slowly in app homepage, and compress images in the system with Imagick extension in PHP, save 90% storage space and increase the speed of loading

Crawler For Multi-media data and Data Preprocessing Junior Research Assistant(Python)	2015.04 – PRESENT @ NEXT Search Center, National University of Singapore
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- Develop web crawlers in Python for Image Data on Flickr, Text Data on NLPjob and Video Data on Youtube
- Develop an extraction and statistic tool in Python for job titles information in LinkedIn text data
- Develop a tool in Python to import data from thousands of excel files to MySQL database automatically

Research on the correlation of text and images on Sina Microblog data Research Engineer(Python)	2015.01 - 2015.08 @Wuhan University of Science and Technology
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- Pre-treat microblog corpus using Python with LTP-cloud(released by Harbin Institute of Technology)
- Extract the semantic and statistical features from the microblog corpus
- Develop a pLSA model in Python for the topic modeling of the microblog corpus
- Keyword Extraction: <https://github.com/cheesezhe/SinaBlogTextMining>
- pLSA topic model: https://github.com/cheesezhe/pLSA_Topic_Model

Atomic Event Extraction Based on the Hybrid HMMs Research Engineer(Python)	2014.06 - 2015.01 @Wuhan University of Science and Technology
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- Pre-treat NTCIR-9 corpus using Python with LTP-cloud
- Develop a HMM model in Python
- Design and develop a Hybrid HMMs(a 2nd-Order and 2-D HMM with K-means) in Python
- Hybrid HMMs: <https://github.com/cheesezhe/Hybrid-HMM>

Atomic Event Extraction Based on Information Unit Fusion 2013.09 - 2014.06

Research Engineer(Java) @Wuhan University of Science and Technology

- Pre-treat the news corpus in Java with Stanford NLP Tools
- Design and develop an Information Unit Fusion Model

The Application Method of Dendritic Cell Algorithm in Outlier Detection 2011.12 - 2012.12

Research Engineer(C) @Wuhan University of Science and Technology

- Analyze the random-based parameters in dendritic cell algorithm
- Design and develop the Result Controllable Dendritic Cell Algorithm in C

RESEARCH ACHIEVEMENTS

- Maofu Liu, He Zhang, Huijun Hu et al. Topic Categorization and Representation of Health Community Generated Data [J]. Multimedia Tools and Applications. [SCI] 2015
- Yikai Gao, Xiangdong Luo, He Zhang. News atomic events temporal relation recognition based on function word and predicate co-occurrence[C].ICMTMA 2015 [EI&ISTP] 2015
- He Zhang, Maofu Liu, Huijun Hu, Jinguang Gu. Atomic Event Extraction Based On Information Unit Fusion[J]. Journal of Wuhan University(Natural Science Edition), 2015102: 139-144 2014
- Yuan, Song, and He Zhang. Result-Controllable Dendritic Cell Algorithm[C]. Intelligent Computing Theory: 10th International Conference, ICIC 2014. [EI&ISTP] 2014
- Patent: Information Unit Fusion-Based Atomic Event Extraction For News (Accepted) 2014
- Software Copyright: Chunking Recognition-Based News Atomic Event Extraction System(Authorized) 2014
- He Zhang, Song Yuan. 结果可控树突状细胞算法[J]. Computer Application and Software, 2013,01:59-62+74 2013

PROFESSIONAL SKILLS

- Experience in Python, C/C++, PHP, Linux, MySQL, Git, Apache Server, NLP tools kit(Stanford NLP Tools, LTP-cloud, NLPPIR), AngularJS, Ionic, Yii2.0, HTML/CSS/JavaScript
- Familiarity with Hadoop, Redis, NLP (POS, NER, Parser, SRL), ML (HMM, BPNNs, pLSA, LR, K-NN, N-Gram, Naïve-Bayesian, Decision Tree, SVM), Recommendation Algorithm(Item-Based CF, User-Based CF)

CERTIFICATES & AWARDS

- Software Designer Certificate (CVEQC, China Vocational Education Qualification Certification) 2012
 - College English Test Level 6 2012
 - Database System Engineer Certificate (CVEQC) 2011
 - College English Test Level 4 2010
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- Be recommended for admission to Wuhan University of Science and Technology to be a postgraduate 2013
 - 6th ITAT C Programming Contest, National first prize 2012
 - WUST 1st ACM Programming Contest, University Second prize 2012
 - Entered the semi-finals of "Baidu Star" Programming contest 2012
 - Undergraduate stage, obtained university scholarship every year and a National Scholarship 2010-2013
 - Undergraduate stage, obtained "Outstanding Student" title 2 times and "Outstanding Graduate" title 2010-2013