

CURRICULUM VITAE

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EDUCATION

Peking University, Beijing, China

Bachelor of Science (B.S.) in Computer Science and Technology *2014-2018(Expected)*

- Overall GPA: 3.66/4.00, Junior GPA: 3.72/4.00
- GRE score: Verbal Reasoning 155, Quantitative Reasoning 170, Analytical Writing 4.0
- TOEFL score: 104 (Reading 30, Listening 25, Speaking 23, Writing 26)
- Selected Courses: Empirical Methods of Natural Language Processing (91), Practice of Programming in C&C++ (92), Introduction to Artificial Intelligence (93), Computer Network Practicum (94.5), Web Software Technology (90), Electronic Resources: Retrieval and Applications (94), Microcomputer Experiments (90)

Carnegie Mellon University, Pittsburgh, United States

Full-time Research Intern in School of Computer Science *Jun 2017 - Nov 2017*

- Advisor: Professor Eric. P. Xing

RESEARCH

Sailing Lab, Machine Learning Department, Carnegie Mellon University

Advisor: Prof. Eric P. Xing *Jun 2017 - Now*

- **Text Generation Library: Txtgen**
 - Built a general text generation library, unifying generative models including GANs and VAEs
 - Contributed to the implementation of most fundamental modules in the library, including encoders, connectors, decoders and loss layers
 - Implemented *Attention is All You Need* in the library
 - Reproducing other state-of-the-art models now
- **Towards Automated ICD coding using deep learning**
 - Utilized hierarchical and character-aware neural language models to generate hidden representations of written diagnosis descriptions and ICD codes
 - Designed an attention mechanism to address the mismatch between the numbers of descriptions and corresponding codes
 - Achieved 0.53 and 0.90 of F1 and AUC_ROC respectively, outperforming baselines by a large margin and providing a potential framework for computer-auxiliary ICD coding

Dlib, Department of Computer Science and Technology, Peking University

Advisor: Prof. Ming Zhang *Jul 2016 - Now*

- **Representations of Heterogeneous Event Sequences for Clinical Prediction**
 - Built heterogeneous event sequence modeling framework for timely clinical prediction by adaptive segmentation and heterogeneous encoding
 - Qualitative analysis of the experiments to validate the effectiveness of different modules and proposed improvement strategies
- **Dynamic Social Recommendation via Neural Attention Model**
 - Crawled movie rating and rater social network from douban website and organized a large dataset
 - Implemented recurrent neural network model for movie recommendation system

Institute of Software, Peking University

Advisor: Prof. Dan Hao

Feb 2016 - Jul 2016

- **Algorithms for Regression Test Case Prioritization**
- Implemented greedy algorithm, additional greedy algorithm and heuristic genetic algorithm for test case prioritization

PUBLICATION

Haoran Shi, Pengtao Xie, Zhiting Hu, Ming Zhang, and Eric P. Xing. "Towards Automated ICD Coding Using Deep Learning." *arXiv preprint arXiv:1711.04075* (2017)

Yichun Yin, Chenguang Wang, Zichang Wang, **Haoran Shi**, Ming Zhang "Composite-Contextual Word Embedding for Aspect Term Extraction." submitted to ACL 2018

PROJECTS

Stanford's Health++ Hackathon Competition

Oct 2017

CatSpotter: provided a cheap, easy and integrated way to identify cataracts and refer patients

- Precision Health and Integrated Diagnostics Center at Stanford Grand Prize (1/53)
- Intel Nervana AI Cluster Runner-Ups (3/53)

Course Projects

<https://github.com/shrshore>

- Implemented an open and close domain QA(question-answering) system
- Reproduced the transition-based semantic dependency parser with two-stack architecture
- Designed a robot to solve the maze problem on Webots simulation platform
- Built website from scratch and attacked it on network layer and link layer
- Online visualization of AQI(air quality index) map with illustration photos

Amateur Interests

<http://shoreqs.top/>

- Deployed my blog to share knowledge since sophomore year

TEACHING EXPERIENCE

Teaching Assistant

Sep 2016 - Jan 2017

Introduction to Computer Systems

EECS, Peking University

- Responsible for designing and grading assignments, preparing course notes, explaining hands-on programming labs, taking charge of seminar discussion
- Contributed to designing problems in exams as well as proctoring the exams

TECHNICAL STRENGTHS

Programming Languages

C/C++, Matlab, Python, Java, Bash, Javascript, SQL, L^AT_EX

Software & Tools

Pytorch, Tensorflow, Eclipse, Vim, Git

Language

Mandarin Chinese (native), English (fluent)

ACADEMIC HONORS

National Inspirational Scholarship, Ministry of Education of China

2015, 2016, 2017

Alumni Scholarship, EECS, Peking University

2017

Wusi Scholarship, Peking University

2016

Outstanding Scientific Research Award, Peking University

2016

Freshman Scholarship, Peking University

2014