

Xiang Zhou

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EDUCATION

SEPT. 2014- PRESENT | B.S.E. in Computer Science
Shanghai Jiao Tong University, China
IEEE Honor Class, an elite program aiming to nurture scientists in EECS
Overall GPA: 3.88/4.30 Major GPA Rank: 3/70

RESEARCH EXPERIENCE

JULY. 2016-PRESENT | Hybrid Intelligence Spoken Dialogue System
Speech Lab, Shanghai Jiao Tong University, Supervised by Prof. Kai Yu

- A novel reinforcement learning framework to let machine learn from human/pre-trained experts
- Address the safety and efficiency problem of dialog systems
- Build an LSTM-based dialog state tracker
- Extend the framework to the combination of rule-based systems

JULY 2017-SEPT. 2017 | Character-level Neural Language Model
NLP Group, University of Notre Dame, Supervised by Prof. David Chiang

- Use DyNet to build a neural language model
- Do extensive experiments to determine limitation of character-level NLM
- Design several novel methods to improve character-level performance

PUBLICATION

- 2017 | Lu Chen, **Xiang Zhou**, Cheng Chang, Runzhe Yang and Kai Yu. *Rule-Guided Safe and Efficient On-line Dialogue Policy Learning*. In Proceedings of the Conference on Empirical Methods in Natural Language Processing 2017 (EMNLP 2017)
- 2017 | Cheng Chang, Runzhe Yang, Lu Chen, **Xiang Zhou** and Kai Yu. *Affordable On-line Dialogue Policy Learning*. In Proceedings of the Conference on Empirical Methods in Natural Language Processing 2017 (EMNLP 2017)
- 2017 | Lu Chen, Runzhe Yang, Cheng Chang, Zihao Ye, **Xiang Zhou** and Kai Yu. *On-line Dialogue Policy Learning with Companion Teaching*. In Proceedings of the 15th Conference of the European Chapter of the Association for Computational Linguistics (EACL 2017)

EXTRACURRICULAR EXPERIENCE

SEPT. 2017- Present | Participation in the translation of *Reinforcement Learning: An Introduction* to Chinese

SELECTED PROJECTS

- JUNE. 2017 | Piano Midi Generation with SeqGAN
Use SeqGAN to train a generative model of two-channel piano midi file. Some music knowledge are also added to achieve better performance
- JUNE. 2017 | Combined Baseline for Link Prediction in Knowledge Graph
Combine the state-of-art algorithms(including pTransE, HolE and ProjE) of link prediction in knowledge graph and build a stronger baseline model
- AUG. 2016 | Efficient Named Entity Recognition System
Build a combination model of rule-based method and a statistical model CRF(Conditional Random Field) to recognize Chinese named entity in text
- JUNE 2016 | Simulated Pipeline CPU
Use Verilog HDL to write a simulated CPU which support the basic instructions of MIPS and implements the 5-stage pipeline structure
- JAN. 2016 | Search Engine of Tourism Products

Build a search engine using Lucene which supports to search text and graph result with text query. All the text and graph are crawled by us from Ctrip. Use SURF to extract features in graph.

JULY 2015 | Simple Racket Interpreter

Write a interpreter supporting the basic expression of Racket in C++

FEB. 2015 | Road Slope Estimation from Noisy Data

Help CyberC3 Intelligent Vehicle Labs, Shanghai Jiao Tong University to process the data and implement a improved Kalman filter algorithm to determine the real slope of the road information from the noisy data

JAN. 2015 | Chinese Word Segmentation System

Build a Chinese Word Segmentation in Python. The system uses mmseg algorithm which uses a number of heuristic rules to find a good segmentation of the text.

SCHOLARSHIPS AND AWARDS

2015 The Mathematical Contest in Modeling 2015 Meritorious
2015, 2016 Academic Excellence Scholarship Prize B
2015 Xindong Scholarship
2016 Eleme Scholarship

LANGUAGES

TOEFL: 106(Reading 28, Listening 27, Speaking 22, Writing 29)
GRE: Verbal 157, Quantitative 170, Analytical Writing 3.5

SKILLS

Programming Language: Python, C++, Lua, MATLAB, ~~LaTeX~~, Verilog
Framework: MXNet, DyNet, Tensorflow, Torch