LETIAN CHEN

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ACADEMIC INTERESTS

Reinforcement Learning, Artificial Intelligence, Computer Vision

EDUCATION

Georgia Institute of Technology, College of Computing
M.S. in Computer Science (Concentration: Interactive Intelligence), Aug 2018 to now
Peking University, School of Psychological and Cognitive Sciences
B.S. in Psychology (Concentration: Cognitive Science and Neuroscience), Sep 2014 to Jul 2018
B.S. in Computer Science, Sep 2015 to July 2018

- **Psychology Overall GPA: 3.64/4.0, Junior GPA: 3.78/4.0**
- **Computer Science GPA: 3.8/4.0**
- **Awards:** Zhang Wenjin Scholarship (1%), Scholarship for undergraduate research, First Prize of National Olympiad in Informatics in Provinces Advanced Group

RESEARCH EXPERIENCE

Better Exploration using Good and Bad Demos, Sep 2016 to Jan 2018
Team Leader, Directed Research, Advisor: Yizhou Wang, Peking University

- Developed a tool to record human demos on OpenAI Universe platform
- Proposed a new algorithm based on Bayesian Neural Network, carried out experiments. The results showed our method boosted RL exploration significantly. Since good and bad human demos are not hard to obtain, it can be a good way to accelerate RL exploration.
- Built up a sample efficiency proof of our method based on Gaussian Process

Model-Free and Model-Based Algorithms in Human Sequential Decision Making, Sep 2017 to May 2018
Undergraduate Thesis, Advisor: Hang Zhang, Peking University

- Designed an experiment to determine whether human uses model-free or model-based strategy in multi-task RL tasks
- Introduce forgetting mechanism in human RL algorithms
- Use computational modeling methods to compare several existing and newly-introduced algorithms
- Still working on it trying to find methods having best explanation power

Face Morphing, Mar 2016 to May 2016

- Implemented face morphing algorithm in C++, which is to morph two faces into one using face landmark detection and Delaunay triangulation
- Codebase and Result are shown on https://github.com/sunshineclt/MagicMorpher

Chinese Word Segmentation, Feb 2016 to May 2016

- Used crawler to automatically fetch Chinese news articles online
- Calculated condensation degree and freedom degree of each possible word, used n-gram algorithm to divide Chinese sentence into words
- Increase correct rate by introducing word frequency to segmentation decision

PKU Hackathon, Apr 2015 to Apr 2015

- Investigated deep learning algorithms for face recognition
- Developed an iOS diary application which needs face to unlock and record current

emotion automatically by extracting features from face

WORK EXPERIENCE

Peking University, PKU Helper Team, Sep 2015 to Present
Senior iOS Developer, Software Engineer

- Developed and maintained iOS app PKU Helper for PKU campus life (10k+ users)

Teaching Assistant, Assisted Prof. Jun Sun in *Introduction to Computation*, Sep 2016 to Jan 2017

- Designed practice set, instructed students, assisted professor for mid-term and final exam

SKILLS

Programming: Python, C/C++, Matlab, JAVA, SQL, JavaScript, Scheme, Swift, Linux, R, SAS
Language: Native in Mandarin, proficient in English (TOEFL 105/120)