LETIAN CHEN

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ACADEMIC INTERESTS

Reinforcement Learning, Artificial Intelligence, Human Intelligence

EDUCATION

Georgia Institute of Technology, College of Computing
M.S. in Computer Science (Concentration: Machine Learning), Aug 2018 to now
- **GPA: 4.0/4.0**

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

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 under multi-task RL environment.
- Introduced forgetting mechanism in human RL algorithms.
- Used computational modeling methods to compare several existing and newly-introduced algorithms.
- Exploring meta-learning explanation on the experiment data.

Better Exploration using both 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.
- Built up a sample efficiency proof for our method based on Gaussian Process and Posterior Sampling.
- Proposed a new algorithm based on Bayesian Neural Network and Posterior Sampling. Experimental results showed it boosted RL exploration significantly.

PROJECTS

Doodle Recognition, Sep 2018 to Dec 2018
- Implemented several Deep Learning architectures to deal with Doodle Recognition task
- Results are shown on https://github.com/sunshineclt/DoodleBuzzReport

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)