YIYUAN (Bill) LI

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EDUCATION

Nanjing University, (Jiangsu, China)

B.S. Electronic Information Science and Technology

September, 2014 – Present
2014 to Present, 4.43/5

University of California, Berkeley (California, USA)

Department of Electrical Engineering and Computer Science

Exchange Student, 4.0/4.0

Peking University, (Beijing, China) July, 2016

College of Engineering Exchange Student, 3.94/4.0

RELEVANT COURSES

Statistical Machine Learning, Probabilistic Graphical Models, Artificial Intelligence, Natural Language Processing, Optimization, Matrix Analysis, Algorithm, Operating Systems, Database, Parallel Processing, Man-machine Interface.

RESEARCH INTERESTS

Natural Language Processing, Machine Learning, Robotics

RESEARCH AND PROFESSIONAL PROJECT EXPERIENCE

Research Assistant October, 2016 – Present

Nanjing University

Natural Language Processing Group

Department of Computer Science and Technology

Supervisor: Professor Xinyu Dai

- Text summarization of scientific papers via hierarchical RNN architecture and long sequence abstract generation.
- Utilized punctuation in the review data to strengthen sentiment potential of sentences and achieved feature importance improvement of opinion words with not top frequencies in Random Forest.

Research Assistant January – August, 2017

University of California, Berkeley

Berkeley Artificial Intelligence Research Laboratory(BAIR)

Department of Electrical Engineering and Computer Sciences

Supervisor: Professor Laurent El Ghaoui

- Hierarchical latent topic extraction and customized topic recommendation of restaurant reviews; Word2Vec visualization of topic distribution of different restaurants.
- Robust adaption of Neural Network (ANN) by adding cross-layer restriction and applied ResidualNet block to improve robustness.

Research Assistant September – December, 2017

Tsinghua University

Institute of Image and Graphics Institute of Network and Human Machine Speech

Department of Electronic Engineering

Supervisor: Professor Yongfeng Huang

- Extracted hierarchical fine-grained aspects structure by propagation clustering method and identified abnormal aspects by adapted mutual information and modified the structure.

Project - Skyinput (Pinyin Input)

October - November, 2016

Nanjing University

Project supervisor: Professor Xinyu Dai

- Implemented Hidden Markov model(HMM) and Viterbi Algorithm to predict the Chinese character or vocabulary word based on the previous pinyin input of the user; designed a user interface(UI) to provide customized interactive experience in text input.

- Achieved providing both long vocabulary and infrequently used vocabulary to the user.

Project – Detachable Robot

July, 2017

Peking University

Project supervisor: Professor Hongbin Liu

- Designed a detachable robot that can be used in climbing and search in complicated environments.
- Mentored the structure design of teammates', applied fluid mechanics and structure mechanics in stability analysis.
- Processed motion planning by A* algorithm.
- Achieved stable movement in aquatic environment and automatic resemble mechanism.

Project – Yelp Data Challenge

March – June, 2017

University of California, Berkeley

Project supervisor: Professor Noureddine El Karoui

- Analyzed restaurant reviews in Yelp using text processing techniques and latent semantic indexing.
- Design a pipeline model for the team and implement the Support Vector Machine(SVM) part, utilizing punctuation to assist bag-of-words model to acquire a high predictability of stars (0.38 Root Mean Square Error) in classification.
- Provided case study in explaining geographical features' impact to restaurant judgment and demonstrating our model via analyzing distribution mode of restaurants' locations and area average stars in Las Vegas.

HONORS & AWARDS

People's Scholarship	December, 2017
Jingxiao Scholarship (3% award rate)	December, 2017
Honorable Mention in Mathematical Contest in Modeling	February, 2017
People's Scholarship	December, 2017
Merit Student Award (5% award rate)	December, 2015
People's Scholarship	December, 2015
Merit Award in Summer Non-Profit Program	October, 2015

LEADERSHIP & VOLUNTEER SERVICES

Co-Manager of <u>Machine Learning Blog</u> on Github, focusing on Natural Language Processing June, 2017 – Present - Contributed overview, up-to-date papers and learning track for people interested in NLP.

Student Psychological Advisor

September, 2016 - Present

- Set up an anonymous platform to let students seek for advice.
- Led weekly discussion of the advisor group in department

Co-Founder of Life of Soccer, public comment column in the Read Daily Online (Zhihu)

October, 2015 – Present

- Written brief and attracting comments to recommended the selected articles.
- Subscriptions of 10,000.

Academic Outreach Representative, Student Union

October, 2014 – January, 2016

- Invited faculties or alumni to give talk about study and research and organized outreach activities for department.

Co-Leader of Non-Profit Teaching Program in Liumutang Town, Loudi, Hunan Province

June – July, 2015

- Designed team assignments, reported to local media to raise the awareness of education among local residents.
- Conducted survey in urban and rural areas, identified factors of unbalanced distribution of educational resources.

MISCELLANEOUS

Languages: Mandarin, English, Cantonese and French

Sports: Soccer, Swimming, Badminton, Chinese Martial Arts (Level 3 Certification)

Hardware/Software: C/C++, Java, Python, Matlab, R, SQL, HTML, Markdown, LaTex, Tensorflow, Pytorch, Linux, NI

Multisim

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