

Jiyang ZHANG

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EDUCATION

Honors College, Beihang University, China

Sep. 2015 – Jul. 2019

- Bachelor in Pattern Recognition and Machine Learning
- Overall GPA: 90.9/100 (3.86/4.0) Major GPA: 93.4/100 (3.96/4.0)

Core Courses: Digital Image Processing (100), Information Retrieval (95), Pattern Recognition and Machine Learning (94)

Department of Computer Science and Operations Research, University of Montreal, Canada

Sep. 2018 – Jan. 2019

- University of Montreal Undergraduate Research Program (2 selected from 213), supervised by professor Jian-Yun Nie

School of Applied Science and Engineering, University of Toronto, Canada

Sep. 2017 – Dec 2017

- Exchange student major in Electrical & Computer Engineering
- Overall GPA: 4.0/4.0

Core Courses: Data Structure and Algorithm (A+), Programming Language (A), Dynamic Systems and Control (A+)

RESEARCH EXPERIENCES

Online Reweighting Neural Framework for Relation Classification from Noisy Data | Research Assistant Oct. 2018 – Feb. 2019

Advisor: Jian-Yun Nie, Professor, Department of Computer Science and Operations Research, University of Montreal

- Proposed a novel robust neural framework to directly learn from noisy data for sentence-level relation extraction
- An online meta-learning algorithm is applied to learn the weights of instances in a mini-batch, to denoise the training set

Integrated Learning of Features and Ranking Function in Information Retrieval | Research Assistant Sep. 2018 – Jan. 2019

Advisor: Jian-Yun Nie, Professor, Department of Computer Science and Operations Research, University of Montreal

- Proposed an integrated end-to-end learning framework based on learning-to-rank to learn both neural features and the ranking function simultaneously.
- The framework has the flexibility to integrate arbitrary traditional features

Intelligent Vehicle Project | Research Assistant

May 2018 – Sep. 2018

Advisor: Hui-Jing Zhao, Professor, School of Electronics Engineering and Computer Science, Peking University

- Built convolutional neural networks to classify different kinds of road intersections based on 3D-LIDAR data
- Applied the model (97% precision) in building a global map and driving assistant

Dental Haptic Device | Research Assistant

Dec. 2017 – Mar. 2018

Advisor: Yu-Ru Zhang, Professor, Robotics Institution of Beihang University

- Investigated co-actuation module to achieve high stiffness and low inertia for haptic devices
- Designed the control algorithm of the haptic device for numerical simulation

Search Engine Development | Research Assistant

Sep. 2017 – Dec. 2017

Advisor: Jian-Wen Zhu, Associate Professor at Department of Electrical & Computer Engineering, University of Toronto

- Implemented the depth-first-order crawler code to traverse 20K web pages
- Constructed the PageRank algorithm to rank the web pages based on the click information for each web page
- Designed the front-end based on the Python Bottle web framework
- Deployed the web application, the front-end, and the backend persistent database on Amazon Elastic Compute Cloud

PUBLICATION

- **(Under-review Paper) Integrated Learning of Representation Features and Ranking Function**, submitted to KDD 2019
Yifan Nie, **Jiyang Zhang**, Jianyun Nie.
- **(Under-review Paper) Online Reweighting Neural Framework for Relation Classification from Noisy Data**, submitted to IJCAI 2019
Zhenzhen Li, **Jiyang Zhang**, Lixin Zou, Pan Du, Jianyun Nie, Dongsheng Li.

HONORS AND AWARDS

- 1st Academic Excellence Award of Beihang University (TOP 3%) 2018
- Academic Competition Award of Beihang University (TOP 10%) 2018
- Honorable Mention Mathematical Contest in Modeling (MCM) 2018
- 3rd Academic Excellence Award of Honors College of Beihang University (TOP 15%) 2017
- 2nd Academic Excellence Award of Honors College of Beihang University (TOP 5%) 2016

- 2nd prize in 2016 China Undergraduate Physics Tournament, BUAA

2016

LEADERSHIP AND ACTIVITIES

- Led the team and won the Bronze Medal in 2016 and the Silver Medal in 2018 for the BUAA League Volleyball Match

SKILLS

- Language skills: English: TOEFL scores 111 (Reading: 30 Listening: 28 Speaking: 24 Writing: 29); Chinese: fluent
- Programing skills: Python, C++, MATLAB