Ruihai Wu

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EDUCATION BACKGROUND

Peking University

Bachelor of Science, Computer Science and Technology   **Expected graduation, July 2020**

- GPA: 3.59/4.0 (Academic Excellence Award)
- Related Courses:

Computer Vision and Deep Learning(top10), Data Structure and Algorithms(top20), Practice of Software Engineering(top1)

RESEARCH EXPERIENCE

Undergraduate member, Machine Intelligence (MI) Lab, Peking University   *2018.3 - present*

- **President's Undergraduate Research Fellowship**
- **Visual Relation Detection, Supervisor: Prof. Yadong Mu**
- To describe all interacting objects in an image using subject-predicate-object triplets (for example, person play guitar).
- Devised the first completely end-to-end neural network to do the task.
- Using graph-based optimization to extract proposals (in progress).
- Wrote code about the neural network with PyTorch, and code about data processing and evaluating benchmark.
- Part of the paper draft is in preparation.

Research Intern, Video Group in Megvii (Face++) Research   *2018.7 - 2018.9*

- **Human Attribute Recognition, Mentor: Dr. Chi Zhang, Lead Researcher of Video Group**
- To recognize human attributes (hat, bicycle, glasses, etc.) in videos.
- Devised a model to synchronously recognize twelve human attributes.
- Compressed the model size by 90%, using knowledge distillation.
- Used attention method, multi-layer features and segmentation results to extract human features more profoundly.

Research Intern, Data Knowledge Intelligence (DKI) Group Microsoft Research Asia (MSRA)   *2019.3 - present*

- **Spreadsheet Intelligence, Mentor: Researcher Xiao Lv**
- https://www.microsoft.com/en-us/research/project/spreadsheet-intelligence/

OPEN SOURCE PROJECTS

TensorLayer 2.0 (under development)

- https://github.com/zsdonghao/tensorlayer2 (TensorLayer 1.0: https://github.com/tensorlayer/tensorlayer, 4785 Stars)
- TensorFlow-based deep learning library
- One of the four collaborators

HONORS AND AWARDS

- May Fourth (decoration day) Scholarship (15 / 330), *Peking University*   *2018*
- Academic Excellence Award, *Peking University*   *2018*
- Excellent Coach Award in Olympiad in Informatics Camp, *Olympic Committee of Jiangsu Province*   *2016, 2017, 2018*
- Huaying Elite Scholarship, *Huaying Education Foundation, Changzhou City*   *2016*
- Bronze medal in National Olympiad in Informatics (NOI), *China Computer Federation*   *2015*
- Admitted as a member in Jiangsu Province Team (one of the top-ranking teams in China with only 15 members) in National Olympiad in Informatics (NOI), *Olympic Committee of Jiangsu Province*   *2015*
- Bronze medal in Asia-Pacific Informatics Olympiad (APIO), *China Computer Federation*   *2015*
- Bronze medal in National Winter Camp (WC), *China Computer Federation*   *2015*
- First prize (three times) in National Olympiad in Informatics in Provinces (NOIP) (top 0.1%), *China Computer Federation*   *2013, 2014, 2015*

PROFESSIONAL SKILLS

- Programming Languages: Python(skilled), C/C++(skilled), Java(skilled), MATLAB
- Deep Learning Framework: PyTorch, Tensorflow
- Language: GRE 155(Verbal Reasoning) + 170(Quantitative Reasoning) + 4.0(Analytical Writing)

OTHER EXPERIENCES

- Participated in the writing of two Olympiad course books in Jiangsu Province: *Advanced Data Structure* (the only special acknowledgement) and *Mathematics in Olympiad in Informatics* (acknowledgement).
- Served as the coach (invited by the Olympic Committee of Jiangsu Province, and taught the best class) in the official winter/summer camp of Olympiad in Informatics in July, 2016, January, 2017 and February, 2018.