JIAJUN TANG

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EDUCATION

Tianjin Polytechnic University **Tianjin**
BEng in Computer Science (Elite Class of Artificial Intelligence) *Sep. 2016 - Present*
GPA: 86/100
CET-6: 458

HONORS

Three years of Dean's List, 2016 - 2019
Three years of Merit Scholarship, 2016 - 2019

RESEARCH INTERESTS

Natural Language Understanding, Machine Translation, Deep Learning

TECHNICAL STRENGTHS

Programing Language	Python, Java, C
Programing Framework	TensorFlow, Pytorch
GitHub	https://github.com/sandwas

CORE COURSES

Operating System (88), Computer Network (93), Machine Learning (84), Applied Statistics (89), Data Mining (88), Computer Vision (88), Compilation Principle (96), Algorithm and Aata Structure Course Design (95), Professional Comprehensive Practice (CV+NLP) (91), Major Internship (96)

EXPERIENCE

Tianjin Key Laboratory of Autonomous Intelligence Technology and Systems **Tianjin**
Student Research Assistant *Sep. 2018 - Present*

- Supervised by Prof. Jianming Wang, I master some basic knowledge about Computer Vision and Natural Language Processing, such as canny detector, sobel operator that used for edge detection, seq2seq, word2vec, attention mechanism and language model like Transformer and BERT.

MLA 2019 **Tianjin**
Student Volunteer *Nov. 2019*

- Attended a conference called The 17th China conference on machine learning and its applications, where I listened to the presentation of professors from universities all over China.

Red Dot Intelligent Technology co. LTD **Tianjin**
Software Engineer Intern *Sep. 2017 - Aug. 2018*

- Our team worked in a project called product background management system, where the the front-end uses the adminLTE framework, and the back-end is based on the integration framework oracle database of springMVC, spring and mybatis.

PROJECTS

Image Caption Generation Algorithm based on Attention Mechanism **Tianjin**
Student Research Assistant *Nov. 2019 - Present*

- I used CNN to extract the features of the image, and then extract the first feature point of the image through the Attention mechanism (select the one with the highest correlation);
- This special experience made me interested in image caption and hope to pursue for further study.

Apply Attention Mechanism to Singing Voice Separation task **Tianjin**
Team Member *Aug. 2019 - Oct. 2019*

- We proposed an end-to-end neural network based on self-attention layer, which focuses on the singing voice separation task. It works on spectrogram domain, which can separate songs into accompaniments and vocals;
- Compared with the baselines, the evaluation metric of our model is greatly improved while the number of model parameters is significantly reduced.

MobileNet: A Lightweight Neural Network for Image Recognition **Tianjin**
Team Member *Oct. 2018 - Nov. 2018*

- This is a lightweight network proposed by Google in 2017, and I tried to reproduce the network on my own for image recognition on CIFAR10 datasets with Pytorch, which only uses 10 layers of CNN without MaxPooling layer but achieved 92% accuracy;
- Through this experiment, I have mastered the basic ability of adjusting parameter and programming, which is of great significance to my follow-up research.

Implement Machine Learning Algorithms Without Framework **Tianjin**
Team Member *Sep. 2018 - Dec. 2018*

- Implemented some machine learning algorithms with pure Python on my own, including K-Means and AGNES Clustering, Bayesian Classification, Logistic Regression, ID3 Decision Tree and so on;
- This experience not only gave me a better understanding of the importance of linear algebra for machine learning, but also gave me a solid foundation in programming.