# Jiayi Yang

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### **EDUCATION**

#### **Beijing University of Posts and Telecommunications**

Beijing, China

Junior Student of Telecommunication Engineering

Sep 2016 - Present

- GPA: 90/100 (Rank 10/319)
- Relevant Coursework: Advanced Mathematics, C Programming Basics, Computer Basics, Java Programming Basics, Database, Advanced Network Programming, Data Structures
- TOEFL: 117/120(Speaking 29)
- Honors/Awards: 1st Class Scholarship of BUPT(2016-2017,2017-2018)

## **Tsinghua University**

Beijing, China

Research Intern at Center for Brain Inspired Computing

Jul 2018 - Present

Advised by Prof. Guoqi Li

### RESEARCH EXPERIENCE

# Large Kernel Spatial Pyramid Pooling for Image Segmentation, Beijing University of Posts and Telecommunications

Beijing, China

Apr 2018 - Nov 2018

Group Leader, Laboratory of Pattern Recognizing

- Initiated a timeline for the project and distributed tasks to group members
- Designing an demonstration that performs live semantic segmentation in the webpage
- Developed a new Spatial Pyramid Pooling method that significantly improves Accuracy of DeepLabv3+ on remote sensing image segmentation.

# Quantization of Training and Inference for Fully Convoluted Network, Tsinghua University

Beijing, China Nov 2018 - Present

Research Intern at Center for Brain Inspired Computing

- Expanded the work of Quantization of training and inference of shallow CNN to large scale CNN
- Research on training and inferencing fully convoluted network (FCN) with quantized variable
- Adapted quantized Batch Normalization to achieve full quantization of neural network

### PROJECT EXPERIENCE

### **Demonstration Platform of Tianjin Chipset, Tsinghua University**

Beijing, China

Research Intern at Center for Brain Inspired Computing

Jul 2018 - Aug 2018

- Built web application using UDP for short distance transmission of data and result for the simulation system.
- Design specific quantized Convolutional Neural Network for simulation.
- Mapping and simulation of Convolutional Neural Network on "Tianji" Brain Inspired Computation chip set .

### Large Scale Implementation of Spiking Neural Network, Tsinghua University

Beijing, China

Group Leader, Research Intern at Center for Brain Inspired Computing

Jan 2019 - Present

- Initiated timeline for the project and distributed tasks to group members
- Expanded the work of Training and Inference of SNN on larger Structures and Bigger datasets
- Simplified the implementation on Pytorch to train on devices with less memory

#### **OTHERS**

Programming Skills: MATLAB, Python, C/C++, Java

- Application Skills: VHDL, Linux
- Machine Learning Skills: Tensorflow, Pytorch