# **ZHONGKAI SUN**

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#### **EDUCATION**

### **Columbia University**

New York, NY

• M.S. in Electronical Engineering (GPA of the first semester: 3.67/4.0)

Expected Dec. 2018

• Relevant Coursework: Neural Networks & Deep Learning, Reinforcement Learning

### **Beijing University of Posts and Telecommunications (BUPT)**

Beijing, CN

• B.E. in Telecommunications Engineering (GPA: 86.0/100)

Sep. 2013-Jun. 2017

• Relevant Coursework: Java Programming, Data Structures, Database Technology and Application

#### **EXPERIENCE**

### QUALCOMM (Shanghai) Co., Ltd.

Shanghai, CN

Intern

Jul. 2016-Aug. 2016

- Took charge of WIFI test (DVT) and RF matching/tuning & simulation
- Tested and evaluated a WIFI-test program

### Lohas Tech (Beijing) Co., Ltd.

Beijing, CN

Intern, Software Developer

Sep. 2016-Dec. 2016

- Took charge of system test and development of Android APP
- Developed a front-end to visualize background data of sensors from smart watches using D3.js

#### **PROJECTS**

## Multi-digit Numbers Recognition using Deep Convolutional Neural Networks Oct. 2017-Dec. 2017

- Used Python do data preprocessing, model training and testing
- Designed and implement a 10-layer CNN using tensorflow and achieved accuracy of 93%

### Simulation of Ecosystem using Reinforcement Learning

Oct. 2017-Dec. 2017

- Implemented the simulated environment of a mini ecosystem using python
- Designed a deep Q-network with CNN to simulated and evaluated the behaviors of the herbivores

### **General Objects Tracking System Based on Deep Learning**

Jan. 2017-Aug. 2017

- Implemented an 8-layer CNN using Caffe
- Optimized the system with motion model and made it can retrack lost target
- Developed a GUI with TKinter and achieved tracking selected target from live video of a camera under GPU environment

### A Demo of Courses Registration System

Nov. 2016-Dec. 2016

- Designed a front-end and used PHP to communicate with MySQL database
- Achieved user registration and encryption of user information

### **Network Traffic Patterns Control Algorithms Based on SDN**

Apr. 2016-Aug. 2016

- Second prize in National SDN Contest in Applications & Innovations
- Optimized network traffic patterns using an SDN protocol OpenFlow to guarantee the QoS
- Developed the front-end to visualize the algorithms and designed the background algorithms

### **SKILLS**

Programming Languages: Python, Java, C++/C, Javascript, PHP, HTML, SQL

Frameworks: Spark, Hadoop, Caffe, Tensorflow, D3.js, Node.js, JQuery