

# Yihao Ai

Cell Phone: +86 18801172863      Email: yiai@ucsd.edu

Address: 19-2, Unit 1, Building 3, Xinchengxinyuan, Nanqiaosi, Jiangbei District, Chongqing, 400021, China

## EDUCATION

---

<b>Beijing University of Posts and Telecommunications (BUPT)</b> , Beijing, China	09/2016-06/2020
Program: Information Engineering	GPA: 3.49/4.0
Degree Expected: Bachelor of Engineering	

## RESEARCH EXPERIENCE

---

<b>Application of Image Recognition in Glaucoma Recognition</b>	03/2019-06/2019
<i>Peking University-Princeton University Cooperative Laboratory</i>	
<ul style="list-style-type: none"><li>Conducted investigation and confirmed to use the cup-disc ratio and vascular thickness to identify glaucoma</li><li>Collected data including fundus images of glaucoma, performed data pre-processing with Python and Photoshop, annotated the images by LabelIMG, and made data set in the format of VOC</li><li>Deployed Faster-RCNN and installed anaconda, cuda, cudnn to accelerate computing software, tested whether the required version of the mainstream Python science package in the Faster-RCNN model could meet the requirements, used VOC data set to operate the demo</li><li>Modified the connection in the code and put the data into the model for training</li></ul>	
<b>The Effects of Partial Time Delay on the Multiple Stochastic Resonance of Neuronal Networks</b>	05/2018-06/2019
<ul style="list-style-type: none"><li>Studied mathematical models of ten kinds of neurons, selected the FHN model for this research after comparison, and implemented small world network with computer and adjacency list</li><li>Integrated data in 12 cases with three hyper-parameters, utilized MATLAB and XML and other software to draw charts including line chart and heat map, and finished a paper for publication</li></ul>	

## INTERNSHIP

---

<b>JD AI Research Institute, Beijing China</b>	07/2019-08/2019
<i>Algorithm Engineer, Artificial Intelligence Business Department - NLP Research and Development Department</i>	
<ul style="list-style-type: none"><li>Learned to use knowledge of Tensorflow, Keras framework, deep learning, and NLP, finished programming with Shell and Python, got familiar with the various science libraries in Python</li><li>Conducted pre-research on the Knowledge Grounded Conversational Model, reproduced the Knowledge Grounded Model of Graph-Attention mechanism of Tsinghua University</li><li>Deployed Faster-RCNN network, made VOC data set with fundus images and LabelIMG, and put glaucoma fundus images into training</li></ul>	

## ASSOCIATIONS & ACTIVITIES

---

<b>Mengya Literary Association of BUPT</b>	09/2018-Present
<i>Officer of the Project Department</i>	
<ul style="list-style-type: none"><li>Planned a series of activities, such as the Hundred Flowers Festival, cultural events and so on</li><li>Cooperated with other members to organize information sessions, competitions, and new members recruitment</li></ul>	
<b>Badminton Club of BUPT</b>	09/2018-Present
<i>Officer of the Centre Group</i>	
<ul style="list-style-type: none"><li>Arranged the venue, finished decoration, prepared necessary items for regular training and competitions</li><li>Acted as the referee to arbitrate the dispute between the result of the competition and the players</li></ul>	
<b>Volunteer of Beijing Marathon</b>	09/2018
<ul style="list-style-type: none"><li>Served as a volunteer to assist in emergency treatment for injured players, distributed awards to players, etc</li></ul>	

- Translated for foreigners and provided guidance for them

### **Mathematical Contest in Modeling**

02/2018

#### *Team Leader*

- Accomplished programming, established a gray scale prediction model to predict the rate of recovery in an area
- Used the Sigmoid function for fitting, calculated the parameter values, assigned specific physical meanings to parameter values, and wrote the final paper
- Assigned tasks to other members and organized the team to complete the project

### **Commissary in Charge of Psychology, School of Information Engineering**

06/2016-09/2018

- Communicated with students and provided consulting service for them to prevent mental health problems
- Developed and managed the official account, wrote articles about common psychological problems of college students and corresponding solutions, created a useful platform for students to share their feelings

### **HONORS & AWARDS**

---

Excellent Psychological Worker	09/2018
Second-class Scholarship	06/2018
Merit Student	06/2018
Third-class Scholarship	06/2017
First Prize of Excellent Psychology Committee Member	06/2017
First Prize of Innovation Exhibition	11/2016

### **OTHER SKILLS**

Computer: C/C++, Arduino, Processing, Linux, Windows, Python

Language: Chinese (native), English (proficient), Japanese (basic)

Strength: Flute, Badminton, Psychology, Classical Music, Photography, Film Cutting, Video Production and so on