

Yihao Ai

Cell Phone: +86 18801172863

Email: 18801172863@163.com

Date of Birth: 10 July 1998

Place of Birth: Chongqing, China

EDUCATION

Beijing University of Posts and Telecommunications (BUPT), Beijing, China

09/2016-06/2020

Program: Information Engineering

GPA: 3.51/4.0

Degree: Bachelor of Engineering

RESEARCH EXPERIENCE

Application of Image Recognition in Glaucoma Recognition

03/2019-06/2019

Peking University-Princeton University Cooperative Laboratory

- Conducted investigation and confirmed to use the cup-disc ratio and vascular thickness to identify glaucoma
- 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
- 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
- Modified the connection in the code and put the data into the model for training

The Effects of Partial Time Delay on the Multiple Stochastic Resonance of Neuronal Networks

05/2018-06/2019

- 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
- 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

INTERNSHIP

College of Computer and Information Science, Southwest University

07/2020-Now

Intern Researcher

- Learning Pytorch environments and dissertations in the fields of medical image processing and computer vision
- Disposing Monodepth based on U-Net frame work to detect the depth of sternum
- Segmenting the threshold of the image and mapping them to the sternum as mask
- Improving the network taking advantage of Attention and Fine-Grained Detection
- Processing data by DensNet and CrossEntropy

JD AI Research Institute, Beijing China

07/2019-08/2019

Algorithm Engineer, Artificial Intelligence Business Department - NLP Research and Development Department

- 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
- Conducted pre-research on the Knowledge Grounded Conversational Model, reproduced the Knowledge Grounded Model of Graph-Attention mechanism of Tsinghua University
- Deployed Faster-RCNN network, made VOC data set with fundus images and LabelIMG, and put glaucoma fundus images into training

ASSOCIATIONS & ACTIVITIES

Mengya Literary Association of BUPT

09/2018-06/2019

Officer of the Project Department

- Planned a series of activities, such as the Hundred Flowers Festival, cultural events and so on
- Cooperated with other members to organize information sessions, competitions, and new members recruitment

Badminton Club of BUPT

09/2018-06/2019

Officer of the Centre Group

- Arranged the venue, finished decoration, prepared necessary items for regular training and competitions
- Acted as the referee to arbitrate the dispute between the result of the competition and the players

Volunteer of Beijing Marathon

09/2018

- Served as a volunteer to assist in emergency treatment for injured players, distributed awards to players, etc
- 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)

TOEFL:102(Reading30;Listening28;Speaking23;Writing21) GRE:320

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