

# Jiuhong Xiao

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## EDUCATION

**B.Eng. in Intelligence Science and Technology** **2019**

University of Science and Technology Beijing (USTB)

- Graduated with major GPA 3.81/4.00 and Excellent Award of Undergraduate Thesis.

## RESEARCH EXPERIENCE

**TAB-IOL: Real-Time Pose Estimation and Tracking for Multiple Fish-Like Robots** **2019**

*Intelligent Biomimetic Design Lab of Peking University*

- Designed a parallel method using both top-down and bottom-up paradigm and keypoint-fused LSTM tracking to resolve estimating and tracking challenge in dense environment.
- Submitted to *CVPR 2020* for review.

**Real-time Pose Estimation and Tracking of Multiple Fish-like Robots: A Marker-less Method using Deep Neural Networks** **2019**

*Intelligent Biomimetic Design Lab of Peking University*

- Designed a vision-based pose estimating method to recognize multi robot fishes and help control the movement of robots.
- Submitted to *IROS 2020* for review.

**Image Encryption Algorithm Based on Memristive BAM Neural Networks** **2018**

*School of Computer and Communication Engineering, USTB*

- Built an algorithm using memristive Bidirectional Associative Memory (BAM) Neural Networks to encrypt images.
- published in 2018 IEEE 3rd International Conference on Data Science in Cyberspace (*DSC 2018*), p205-212, July 16, 2018.

**The Stability of Memristive Multidirectional Associative Memory Neural Networks With Time-varying Delays in the Leakage Terms via Sampled-data Control** **2018**

*School of Computer and Communication Engineering, USTB*

- Simulated motion state of neurons of Memristive Multidirectional Associative Memory (MAM) Neural Networks.
- Published in *PLoS One*, Volume: 13, Issue: 9, Pages: e0204002, September 24, 2018.

## TEACHING EXPERIENCE

### Tutor of Arduino

2016-2017

*USTB Innovation Technology Center*

- Taught Arduino programming to high school students and helped develop Arduino-based projects with MP3 module, LED module, etc.

## TECHNICAL COMPETENCIES

### Object Identification System Based on Speech Feedback

2018

*“Huawei Cup” Intelligence Design Contest*

- Detected the location and category of various objects by the object detecting system based on TensorFlow.
- Improved the accuracy or added new categories via the user’s speech feedback.

### CT Image Reconstruction System

2017

*National Mathematical Modeling Competition*

- Used MATLAB to find out the center and rotation of CT scanner based on one projected image.
- Reconstructed CT image based on the filtered back-projection (FBP) algorithm.

## PROFESSIONAL EXPERIENCE

### Intern in Product Department

2018

*Ablecloud Co., Ltd*

- Developed mobile APP, cloud server and embedded module of smart home lamps.
- Offered technological support for car networking.

### Intern of Software Engineer

2017-2018

*Beijing Beike Xinxing Science and Technology Co., Ltd*

- Developed full-stack work including front-end web pages, back-end data processing and MySQL data organization.
- Constructed cluster visualization based on D3 tools.

## HONORS AND AWARDS

Third Prize, “Huawei Cup” Chinese College Students Intelligence Design Contest 2018

People’s Scholarship, USTB 2015-2018

First Prize, Mathematical Modeling Competition, Beijing 2017

Excellence Award, Boer National College Students Innovation Entrepreneurship Competition, Beijing 2017

Second Prize, Sensor Design Competition, USTB 2016

Third Prize, iCAN International Contest of Innovation, China 2016