# JIUHONG XIAO

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#### **EDUCATION**

## New York University, New York City

2020 - Present

M.S. in Computer Science.

GPA: 4.0/4.0

# University of Science and Technology Beijing, Beijing

2015 - 2019

B.Eng. in Intelligence Science and Technology.

GPA: 87.2/100.0, Major GPA:89.9/100.0. Excellent Award of Undergraduate Thesis.

#### **PUBLICATIONS**

TAB-IOL: Real-Time Pose Estimation and Tracking for Multiple Fish-Like Robots 2020 Tianhao Zhang\*, Jiuhong Xiao\*, Liang Li, Chen Wang, Wei Wang, Guangming Xie Submitted.

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

2020

Tianhao Zhang\*, Jiuhong Xiao\*, Liang Li, Chen Wang, Wei Wang, Guangming Xie Submitted.

# Image Encryption Algorithm Based on Memristive BAM Neural Networks

2018

Jiuhong Xiao, Weiping Wang, Meiqi Wang

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 2018 With Time-varying Delays in the Leakage Terms via Sampled-data Control

Weiping Wang, Xin Xiao Yu, Xiong Luo, Long Wang, Lixiang Li, Juergen Kurths, Wenbing Zhao, Jiuhong Xiao

PLOS ONE, Volume: 13, Issue: 9, Pages: e0204002, September 24, 2018.

#### **PROJECTS**

#### Autodetection: An End-to-end Autonomous Driving Detection System

2020

Advisors: Yann LeCun, Alfredo Canziani.

Proposed an end-to-end autonomous driving detection system for roadmap prediction and object detection, using feature pyramid network (FPN) and variational autoencoder pretraining to improve model performance.

#### A Survey of Bayesian Methods for Deep Learning

2020

Advisor: Joan Bruna.

Surveyed recent works that apply principles of Bayesian inference to deep learning, and made note of notable applications of Bayesian deep learning.

#### Object Identification System Based on Speech Feedback

2018

Detected the location and category of various objects by the object detecting system based on Tensor-Flow, and improved the accuracy or added new categories via the users speech feedback.

### CT Image Reconstruction System

2017

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

#### TECHNICAL COMPETENCIES

Proficient Python, Tensorflow, Keras, Pytorch Skilled C++, Java, Opency, Matlab

## **EXPERIENCE**

# Peking University, Beijing

2019 - 2020

Research Assistant

Researched on the combination of computer vision and fish-like robot control.

#### AbleCloud, Beijing

2018

Intern. in Product Department

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

# University of Science and Technology Beijing, Beijing

2016 - 2017

Tutor of Arduino

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

#### HONORS AND AWARDS

Third Prize, Chinese College Students Intelligence Design Contest	2018
Peoples Scholarship, USTB	2015 - 2018
First Prize, Mathematical Modeling Competition, Beijing	2017
Excellence Award, Boer National College Students Innovation Entrepreneurship	2017
Competition, Beijing Second Prize, Sensor Design Competition, USTB	2016
Third Prize, iCAN International Contest of Innovation, China	2016