# Linsen Dong

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#### EDUCATION

Bachelor of Engineering in Measurement and control technology and instrumentation, School of Automation and Engineering 08/2014 present University of Electronic Science and Technology of China(UESTC), Sichuan, China GPA: 3.45 /4.0

## RESEARCH INTERESTS

- Machine Learning, especially Deep Reinforcement Learning
- Multi-Agent System
- Autonomous System

#### PROJECT AND RESEARCH EXPERIENCES

## Mars (Multi-Agent and Robotic System Lab of UESTC) 08/2015 07/2017

- 1. Mobility Load Balancing Algorithm in Basestation based on LSTM
  - Built a LSTM(Long-Short Term Memory) network to predict users' moving policy under some certain scenarios (subway station, office building, etc.)
  - Achieved 90% accuracy for predicting basestation that users will connect to next and firstly incorporated Deep Learning to solve the basestation control problem
  - Project website: <a href="https://github.com/Lukeeeeee/MLB-LSTM">https://github.com/Lukeeeeee/MLB-LSTM</a>
- 2. Multi-Agent Control System based on DDPG and Fuzzy Logic Control System
  - Built a novel platform that implement DDPG (Deep Deterministic Policy Gradient) controller and fuzzy logic rule controller based on Tensorflow
  - Firstly incorporated human knowledge to DDPG by using fuzzy logic rule system
  - Project website: https://github.com/Lukeeeeee/DRLFramework
- 3. Multi-UAV Path Planning System based on Colony Algorithm
  - Built a distributed multi-UAV path planning system
  - Inspired by the concept "pheromone" in swarm intelligence and invented a method to computed the pheromone between every agent

#### MII (Machine Intelligence Institute of UESTC) 07/2017 present

- 1. An End to End Autonomous Driving System based on LSTM
  - Built an end-to-end autonomous driving control system based on torcs game using camera's temporal image data as input, controlled the car's wheel, brake, etc.
  - Firstly used temporal data and built a RNN(Recurrent Neural Network) model to solve automation driving problem
  - Project website: <a href="https://github.com/Lukeeeeee/AlphaDriver">https://github.com/Lukeeeeee/AlphaDriver</a>

# DCML (Distributed and Mobile Computing Lab of UESTC) 06/2017 09/2017

- 1. A Multi-Discriminator Generative Adversarial Networks (GAN)
  - Built a multi-D GAN model using multi-dataset to generate a mixture of different styles and features
  - Firstly applied GAN to multi-dataset and multi-discriminator
  - Project website: <a href="https://github.com/Lukeeeeee/DC-GAN">https://github.com/Lukeeeeee/DC-GAN</a>

## SysLab (A Web Development Studio of UESTC) 12/2014 10/2015

- 1. A website project for Journal of UESTC
  - Implemented the website back-end using PHP with MVC design pattern and database management using MySQL
  - As project leader, coordinated the development task within group and scheduled the progress of the project

#### AWARDS AND HONORS

- 1. Bronze Medal The ACM-ICPC Asia Regional Contest Xi'an Site 2014
  - Rank 36/505
- 2. First Prize in High Performance Computing Competition of UESTC hosted by NVIDIA and OMNISKY 2016
  - Built a novel parallel CCL (Connected-component labeling) algorithm based on CUDA platform running at NVIDIA graphic card using C++
  - Achieved 5x speed up comparing to normal CPU algorithm
  - Project website: <a href="https://github.com/Lukeeeeee/CCL">https://github.com/Lukeeeeee/CCL</a>

### **SKILLS**

- Programming Language: C, C++, Python
- Tools and Platform: Tensorflow, CUDA, Caffe, MATLAB
- Standardized Test of English:
  - TOEFL 101(Reading 28, Listening 27, Speaking 24, Writing 22)
  - GRE 324(Verbal 154, Quantitative 170) + AW 3.0