# **Zhicheng Ding**

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## **EDUCATION**

#### **Columbia University**

New York, NY Jan, 2018 - May, 2019

- M.S in Computer Science
- RA at Columbia University in Center for Computational Learning System(CCLS) Supervisor: Albert Boulanger

#### **South China Normal University**

Guangzhou, CN SEP, 2012 - Jun, 2016

- B.S. in Electronic Information Engineering, GPA: 3.47/5.00 (Top 3%)
- Was conferred onto the "Outstanding Graduate" of the department (50/630)
- First-class award for academy excellent for three consecutive years (2013, 2014, 2015)

#### PROFESSIONAL EXPERIENCE

#### WellAV Technologies Ltd.

Software Engineer Huizhou, CN Mar, 2016 - Jul, 2017

- Developed controller board (C++) and compiling system (Python) for new 4K product UHD600.
- Optimized MRD compiling system: shorten build time from 27hrs to 5hrs and easily manage build file (Python).
- Maintained MRD products by fixing bugs (C++, Python) and refactor the code (C++).

## **Ericsson**

Software Development Engineer (Intern) Guangzhou, CN Jul, 2015 - Dec, 2015

 Participated in the development of Test-Automation system based on deep learning: responsible to test report analysis and generation based on deep learning. This system has saved QA team for almost 10000 man-hours by 07/2017 and improved the robustness of products by 13%.

## ACADEMIC EXPERIENCE

## Intelligent Building Management based on Deep Reinforcement Learning

Jan, 2018 - Now

- Supervisor: Senior Staff Associate Albert Boulanger.
- Goal: Design the Deep Reinforcement Learning algorithm for IBM and implement the demo in skyscraper in NY.
- Currently, working on designation of deep reinforcement learning algorithm.

# Moving Object Tracking and Detecting based on Deep Learning

Jun, 2015 - Jun, 2016

- Supervisor: Associate Prof. Xiaohui Hu.
- Developed tracking and detecting system based on deep learning (Python, CNN).
- Proposed an algorithm, which shortened computing time by 9.6% and increase the recognition accuracy by 17.2%, comparing to Lucas-Kanade Optical Flow algorithm.

#### Study on the Networking of Wireless Sensor Networks in Intelligent Labs

Jun, 2014 - Jun, 2015

- Purpose: to study how to establish a wireless network based on ZigBee in Smart Labs to build an intelligent Internet of Things system integrated lights, fans, air-conditions, fire alarms, computers, and experimental apparatus.
- Developed wireless communication function of ZigBee, and GUI to control lab apparatus (C++, Python).
- Successfully applied utility patent which has been listed above as the second author.

## **PUBLICATION & PATENTS**

- Publication: Weipeng Hu, Zhihua Li, Zhicheng Ding. Traffic Emergency Guidance Gloves Based on ZigBee.
  Engineering Technology. 2015, 0 (8); 109-109.
- Utility model patent: Bin Zhou, Zhicheng Ding, Chibin Kong, Changtao Lu, Sailing He. A Field Early-warning Wireless Monitoring System based on Fiber Grating Sensor. Patent Number: ZL. 2015 2 0015530.3. Issued date: 2015 05 20
- Copyright of Computer Software: Weipeng Hu, Zhicheng Ding. The Fractal Algorithm and Fractal Tree Software based on VC++ MFC. Patent Number: 2015SR156686. Issued date: 2015-08-13.

## **SKILLS**

- Programming: Python (advanced), C/C++ (advanced), Linux (fluent), Algorithm (fluent), Matlab (Familiar)
- ML experience: regression, classification, clustering, NLP, CV, deep learning.