# **Chun-Chih 'Jerry' Teng**

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#### **Education:**

**B.S.** in Electrical Engineering and Computer Science (EECS), National Chiao Tung University (NCTU), Taiwan. 2013 -present

### **Research Interest and Related Courses:**

Software Development, Data Structure / Algorithm / Database System / Operating System / Computer Network / Cloud Computing / Computer Organization / Graph Theory
Computer Vision and AI, Robotics Vision / Computer Graphics / Digital Image Processing / Signal and System / Pattern Recognition / Machine Learning

#### **Research Experience:**

**Assistive Robotics Group**, 2016-present, Advisor: Prof. Hsueh-Cheng 'Nick' Wang **Project: Deep Convolution Neural Network for Text Spotting with Synthesized Rendered and Robot Harvest Training Data** 

Deep CNN has shown promising progress on object recognition and text spotting. Previous work used synthesized computer-graphic rendered training data to minimized labor-intensive labeling. Nevertheless, rendered data may not well cover all variations such motion blur or perspective Transform observed from moving robots. My work is creating training samples from both computer-graphic renderer and a mobile robot traversing systematically to obtain observations. I then train various CNN models to improve the accuracy of text recognition. The experiment results show that the models trained from rendered data are reasonable accurate, but robot-harvest data obtained higher accuracy.

# **Publications:**

Tzu-Kuan Chuang, **Chun-Chih Teng**, Sudeep Pillai, Chen-Hao Hung, Yi-Wei Huang, Chang-Yi Kuo, Teng-Yok Lee, Liam Paull, John Lenoard and Hsueh-Cheng Wang. Enable End-to-End Deep CNN Signage-Centric Text Spotting using Robot-Harvest Data. Submitted to IROS 2017.

# **Professional Skills:**

**Programming Language:** Java / C / C++ / Python / PHP / MySQL

Web: HTML/CSS/NodeJS

System and Distributed Computing: Unix / Andriod / ROS / Hadoop

Computer Vision: OpenCV / Caffe / CUDA

#### **Honor:**

## The 3<sup>rd</sup> award of Taiwan Mei-Chu Hackthon Microsoft Group in 2015

Our project is a rescue platform to consolidate all relevant information on the same place to reduce the resource waste. I used the PHP/MySQL to connect the web page and information storage, and this feature can make sure the consolidation of data.

# **Professional Experience and Leadership:**

National Chiao Tung University Student Union, Vice-President, 2015-2016

- ✓ Coordinate with the member of student union and hold several big events to students
- ✓ As representative of students, participate several university meeting to fight for the right of students

#### AIESEC NCTU Local Committee, Vice-President, 2014-2015

Initiated a digital mentor system to engage more than 300 seniors with current members in club, and this system support club very well and is still used in every year.