Shimeng Yu

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Control Science and Engineering

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EDUCATIONAL BACKGROUND

Harbin Institute of Technology (HIT), M.E   **Harbin, China**

Major: Control Engineering   Sept. 2015-Expected July 2017

Research Interests: Computer Vision, Deep Learning

Overall GPA: 3.9/4; **Major GPA:** 3.9/4

Shenyang University of Technology (SUT), B.E   **Shenyang, China**

Major: Automation   Sept. 2010-July 2014

Overall GPA: 3.4/4; **Major GPA:** 3.6/4

RESEARCH PROJECTS

Robust Multi-Pose Face Recognition in the wild   **Harbin, China**

Project leader   **Sept. 2016-Present**

- An undergoing project aims to achieve unconstrained face recognition in some extreme conditions such as large pose variations and varying expression.
- Several Convolutional Neural Networks are going to be built based on Caffe.
- 3D models of a single face from images with different views in the certain database are going to be built.
- An optimizational learning algorithm to deal with low resolution situation is going to be proposed.

Identification System based on Real-time Face Recognition   **Harbin, China**

Research Assistant for Associate Prof. Zhenshen Qu   **May 2016-July 2016**

- A real-time identity verification system built for intelligence access based on deep learning in order to realize face recognition with high accuracy.
- Created a new loss function in the process of feature learning to meet the robustness requirements.
- Built a Convolutional Neural Network based on Caffe.
- Used a novel median pooling method.

License Plate Recognition in Intelligent Transportation System   **Harbin, China**

Project leader   **Mar. 2016-May 2016**

- This project included vehicle detection and tracking as well as license plate segmentation and recognition.
- Used Gaussian blur algorithm to model the background and detect the running vehicle.
- Designed a novel CNN and implemented it in Caffe framework based on Python interface.
- Trained the CNN to learn features and used the well-trained CNN to recognize the license plate.

PUBLICATION

Z. Qu, **S. Yu** and M. Fu, "Motion background modeling based on context-encoder", 2016 Third International Conference on Artificial Intelligence and Pattern Recognition (AIPR), Lodz, Poland, 2016, pp. 1-5. DOI: 10.1109/ICAIPR.2016.7585207

- Corresponding author
- A background generating method for motion-based background of a video with dynamic foreground made by moving camera is proposed in this paper.

WORKING EXPERIENCE

Computer Vision Lab, Department of Control Science and Engineering, HIT　　　　**Harbin, China**
Assistant for Associate Prof. Zhenshen Qu　　　　**Mar. 2016-Present**

- Took a responsibility of overseeing the projects progress and coordinating the programs of each member in the research team.
- Assisted A.P. Qu to arrange for the regular seminars and compiled reports after each seminars.

Counseling & Psychology Service Centre, HIT　　　　**Harbin, China**
Assistant for Associate Prof. Ying Xu　　　　**Sept. 2015-Present**

- Assisted A.P. Xu to audit appointment applications and arrange psychological consultations.
- Optimized and maintained the online appointment system and the homepage of the Counseling & Psychology Service Centre.

HONORS & AWARDS

- Suzhou Industrial Park Scholarship Recipient　　　　Oct. 2016
- The First Prize of Post-Graduate Students Scholarship Recipient　　　　Sept. 2016
- The First Prize of Post-Graduate Students Scholarship Recipient　　　　Sept. 2015
- Undergraduate Students Scholarship Recipient　　　　Sept. 2013
- Undergraduate Students Scholarship Recipient　　　　Sept. 2012

EXTRACURRICULAR ACTIVITIES

***Spring Bud House* Charity Tutorial Campaign**　　　　**Harbin, China**
Volunteer　　　　**Sept. 2015-July 2016**

- Taught Mathematics and English for teenagers in the community as a nonprofit tutor on weekends.

***CAPE Meet-up 2014 Shenyang* event**　　　　**Shenyang, China**
Organizer　　　　**Feb.2014**

- Invited keynote speakers: the organizer of TEDxJLUHP, a cultural relic inspector in the local Cultural Relics Bureau and a famous local folk singer-songwriter.

SKILLS

Professional Skills　　　　MATLAB, OpenCV, Caffe, Torch
Programming languages　　　　Proficient in C, C++, Python, MATLAB; familiar with Lua
Interests　　　　Literature, Music, Movie, Swimming