

# Shimeng Yu

Erik Jonsson School of Engineering & Computer Science

Computer Engineering

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## EDUCATIONAL BACKGROUND

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**The University of Texas at Dallas**

**Richardson, USA**

**Major:** Computer Engineering

Aug.2017-Present

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

**Harbin, China**

**Major:** Control Engineering

Jul. 2017

**Research Interests:** Machine Learning

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

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

**Shenyang, China**

**Major:** Automation

Jul. 2014

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

## RESEARCH PROJECTS

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**Unconstrained Face Recognition**

**Harbin, China**

**Project leader**

**Sept. 2016-Apr. 2017**

- A project aimed to achieve unconstrained face recognition in some extreme conditions such as large pose variations and varying expression.
- A Convolutional Neural Network was built based on Caffe.
- Realize a high computing efficiency with the ensurance of accuracy.

**Identification System based on Real-time Face Recognition**

**Harbin, China**

**Research Assistant for Associate Prof. Zhenshen Qu**

**May 2016-Jul. 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**

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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

- 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**

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**Computer Vision Lab, Department of Control Science and Engineering, HIT** **Harbin, China**  
**Assistant for Associate Prof. Zhenshen Qu** **Mar. 2016-Jul. 2017**

- 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-Jul. 2017**

- 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**

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- 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**

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