# Cheng Chi

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## **Educations**

PhD candidate 2015.9-present

State Key Laboratory of Transducer Technology, Institute of Electronics, Chinese Academy of Sciences

Beijing

Bachelor degree

College of Electrical and Information Engineering,

Hunan University of China

Changsha

2011.9-2015.6

# Publications\_

- Cheng Chi, Shifeng Zhang, Junliang Xing, Zhen Lei, Stan Z. Li, Xudong Zou. Selective Refinement Network for High Performance Face Detection. Association for the Advancement of Artificial Intelligence (AAAI), 2019. (Oral Presentation)
- Cheng Chi, Xuguang Sun, Tong Li, Xin Shu, Ning Xue, Chang Liu. A Flexible Tactile Sensor With Good Consistency. IEEE Access (SCI, IF:3.557), 2018.
- Cheng Chi, Xuguang Sun, Ning Xue\*, Tong Li, Chang Liu\*. Recent Progress in Technologies for Tactile Sensors. Sensors (SCI, IF:2.475), 2018.
- Cheng Chi, Xuguang Sun, Tong Li, Ning Xue, Chang Liu. Preparation of multi-walled carbon nanotubes/polydimethylsiloxane composite for electronic skin application. 8th IEEE International Nanoelectronics Conference, 2018.
- Xin Shu, Chang Liu, Tong Li, Chunkai Wang, **Cheng Chi**. A Self-supervised Learning Manipulator Grasping Approach Based on Instance Segmentation. IEEE Access (**SCI**, **IF:3.557**), 2018.
- Ning Xue\*, Guangheng Gao, Jianhai Sun, Chunxiu Liu, Tong Li, **Cheng Chi\***. Systematic study and experiment of flexible pressure and tactile sensing array for wearable devices applications. Journal of Micromechanics and Microengineering (**SCI**, **IF:1.888**), 2018.
- Ning Xue\*, Chunxiu Liu, Jianhai Sun, Tong Li, Cheng Chi, Hwan-Ing Hee, Yu-Shun Wang\*.
   Miniature force sensing system for monitoring of optimal cricoid pressure for airway protection.
   IEEE Sensors Journal (SCI, IF:2.617), 2018.
- Ning Xue\*, Deheng Wang, Chunxiu Liu, Zunji Ke, Paz Elia, Tong Li, , **Cheng Chi**, Yuhua Cheng, Jianhai Sun. A biodegradable porous silicon and polymeric hybrid probe for neural signal recording. Sensors and Actuators B: Chemical (**SCI**, **IF:5.667**), 2018.
- Xuguang Sun, Chunkai Wang, **Cheng Chi**, Ning Xue, Chang Liu. A highly-sensitive flexible tactile sensor array utilizing piezoresistive carbon nanotubes-polydimethylsiloxane composite. Journal of Micromechanics and Microengineering (**SCI**, **IF:1.888**), 2018.
- Tong Li, Cheng Chi, Chunkai Wang, Ning Xue, Chunxiu Liu, Chang Liu. Real-time and autonomous grasping operation ofmanipulator based on tactile sensor array. 2nd IEEE Advanced Information Management, Communicates, Electronic and Automation Control Conference, 2018.

## Awards\_\_\_\_

 $2018-3\mathrm{rd}$  place in WIDER Challenge on the face detection track

2018 Merit Student

# Projects\_\_\_\_\_

#### • State-of-the-art Face and Pedestrian Detector

Achieving the state-of-the-art accuracy on common benchmarks with GPU real-time.

# • Face Detector on Frontend Chip

Tiny models to run on ARM chips for surveillance and mobile phone projects.

Solving hard cases in face detection: Dark and Backlighting scene, 360° face detection, etc.

#### • Joint Detection of Head and Human Body

Learning the relationship between head and body to improve both tasks.

#### • Robotic grasp based on visual and tactile information

Utilize the tactile and visual information obtained from tactile sensor and camera on the robotic arm to achieve accurate and stable grasp.

# Research Experience\_\_\_\_\_

#### Joint PhD student in CASIA

2018.8-present

Face and hand detection on mobile device

#### Research Intern in Sensetime Research

2018.1-present

State-of-the-art face and pedestrian detector

Joint detection of head and human body

Responsible for face and human detection in surveillance projects

## Skills

- Programming: Python, Matlab, C/C++, Latex, PyTorch, OpenCV
- Research Tools: GitHub, PyCharm, PowerPoint