# **Shitong Sun**

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## **RESEARCH INTERESTS**

Person Re-identification, Federated Learning, Transfer Learning

#### **EDUCATION**

Queen Mary University of London | Computer Vision | PhD | Supervisor: Shaogang Gong
Katholic University of Leuven | Artificial Intelligence | Master | Cum Laude
Sept.2017-Sept.2018
Katholic University of Leuven | Electronic Engineering | Bachelor | Cum Laude
Sept.2015-Jul.2017
Beijing Jiaotong University | Electrical Engineering and Automation | Bachelor | 90.1%
Sept.2013-Jul.2015

### **WORKING EXPERIENCE**

Institute of Automation, Chinese Academy of Science | Deep CNN based computer vision

China, 2018-2020

- Research: Develop ReID algorithm and enhance its performance on market 1501, Duke datasets
- Skiing company project: Apply pedestrian-attribute-recognition algorithm to real-world problems
- National key project: Reconstruction of human 3D model based on Densepose, fix it to Intelligent Scene Exploration and Evaluation (ISEE) platform

#### **PUBLICATION**

Decentralised Person Re-Identification with Selective Knowledge Aggregation | BMVC 2021 London, 2020-2021

Research: Federated ReID algorithm with both domain specific knowledge and domain invariant knowledge under privacy protection.

# **PROJECTS**

### Master Thesis | Deep Neural Network | Continual learning

Belgium, 2017-2018

Supervisor: Prof. Tinne Tuytelaars

- Using data prototypes to avoid forgetting in continual learning
- Design algorithm for data representation extraction and combination from different tasks

### **Incisor Segmentation | Computer Vision**

Belgium, 2018

- Build a simple incisor detector based on PCA for initial position estimation
- Apply the Active Shape Model for incisors
- Interpret the shape models with images for delicate segmentation

## Course Experiment | Machine learning algorithm

Belgium, 2017-2018

- Using SVM, LSSVM with kernel solving linear or nonlinear regression and classification problem
- CNN, RNN, Hopfield network, Logistic Regression, Bayes Learning and MATLAB realization for the algorithm above

### **AWARDS**

- Graduated with Cum Laude Bachelor and Master Honors in KU Leuven in 2017 and 2018
- Merit Student in Beijing Jiaotong University in 2015
- Study Scholarship in Beijing Jiaotong University in 2014 and 2015

## **SKILLS**

- Language: English LELTS 6.5, fluent in both spoken and written English; Chinese with Native Proficiency
- Codding: 5 years of coding experience, familiar with Python, C, Java, TCP/IP, MATLAB, Keras, Pytorch, Caffe, Tensorflow.