Shitong Sun

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RESEARCH INTERESTS

Vision-Language, Zero Shot Learning, Compositional Learning, Federated Learning

EDUCATION

Queen Mary University of London | Computer Vision | PhD | Supervisor: Shaogang Gong **Sept.2020-Now**

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**

RESEARCH

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.

Federated Zero-Shot Learning with Mid-Level Semantic Knowledge Transfer | Under review London, 2021-2022

- Research: Federated ZSL with scalable and data protected mid-level knowledge transfer.

Benchmarking Robustness of Text-Image Composed Retrieval | Under review **London, 2022-2023**

- Research: Robustness analysis on text-guided image retrieval.

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 market1501, 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

Teaching Assistant in QMUL, Machine Learning, Computer Vision **London, 2021-2023**

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 an incisor detector based on PCA and Active Shape Model for initial position estimation
- 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.