

FA-TING HONG

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RESEARCH INTERESTS

- Computer Vision: important people detection, video highlight detection, collective activity recognition.

EDUCATION

Sun Yat-sen University

Aug. - 2018 Now

- M.Sc. in Computer Science and Technology
- Research area: computer vision. Supervisor: Prof. Wei-Shi Zheng.

South China University of Technology

Aug. 2014 - Jun. 2018

- B.E. in Computer Science and Technology
- Research area: SLAM of Robot. Supervisor: Prof. Sheng Bi.

PUBLICATIONS

- **Fa-Ting Hong, Wei-Hong Li and Wei-Shi Zheng. Learning to Detect Important People in Unlabelled Images for Semi-supervised Important People Detection. In Computer Vision and Pattern Recognition, 2020.**

In this work, we study semi-supervised learning in the context of important people detection and propose a semi-supervised learning method for this task. Our approach iteratively learns to assign pseudo-labels to individuals in un-annotated images and learns to update the important people detection model based on data with both labels and pseudo-labels. To alleviate the pseudo-labelling imbalance problem, we introduce a ranking strategy for pseudo-label estimation, and also introduce two weighting strategies: one for weighting the confidence that individuals are important people to strengthen the learning on important people and the other for neglecting noisy unlabelled images.

- **Wei-Hong Li*, Fa-Ting Hong*, and Wei-Shi Zheng. Learning to Learn Relation for Important People Detection in Still Images. In Computer Vision and Pattern Recognition, 2019. (*Equal Contribution)**

In this work, we propose a deep imPOrtance relatIon NeTwork (POINT) that combines both relation modeling and feature learning. In particular, we infer two types of interaction modules: the person-person interaction module that learns the interaction between people and the event-person interaction module that learns to describe how a person is involved in the event occurring in an image. We then estimate the importance relations among people from both interactions and encode the relation feature from the importance relations.

- **Liang, Y., Hong, F., Lin, Q., Bi, S., & Feng, L. (2017, July). Optimization of Robot Path Planning Parameters Based on Genetic Algorithm. In 2017 IEEE International Conference on Real-time Computing and Robotics (RCAR) (pp. 529-534). IEEE.**
- Another work about the video highlight detection has been submitted to ECCV2020. The average score over all reviewers is 4.

AWARDS

- Chinese National Scholarship (1/160), by Minister of Education of China, 2017

PROJECT

National Innovation and Entrepreneurship Project

2016 - 2018

- Title: Research on Robot Autonomous Navigation Based on Lidar
- Role: Team leader
- Duties included: I mainly do research on the local path planning of the robot, which make the robot can avoid obstacles and walk more smoothly in different environments. On the basis of research, we use genetic algorithms to find a optimal parameter set, and let the robot make the ideal behavior.
- Project Acceptance Evaluation: Excellent.