Ruize Han

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🎓 Education

Tianjin University (TJU), Tian Jin, China   2019 -- Present
Ph.D *student* in Computer Application Technology

Tianjin University (TJU), Tian Jin, China   2016 -- 2019
M.Eng. in Computer Technology Engineering

Hebei University of Technology, Tianjin, China   2012 -- 2016
B.S. in Mathematics and Applied Mathematics

🏛 Research Projects

Multi-Camera Video Analysis   Jan. 2019 -- Present
> Associate and track multiple humans between the top bird's eye view and horizontal egocentric view.
> Detect the co-interest person (CIP) via the human visual attention using complementary-view cameras.
> Detect and recognize the human-human interactions under crowded scene using graph neural network.

Visual Object Tracking   Jul. 2017 -- Present
> Design the dynamic/selective content-aware regularization in spatial-temporal domain for corrlation filter (CF) based visual object tracking.
> Propose a new weighting sample based approach for CF tracking to alleviate the boundary effects.

Visual Positioning & Precision Measurement   Sep. 2016 -- Jul. 2017
> Inspect the fine-grained change of cultural relics under real-world hosting environments via visual positioning and precision measurement.
> Active recurrence of lighting condition for fine-grained change detection.

📑 Publications

- **Ruize Han**, Wei Feng, Song Wang. Fast Learning of Spatially Regularized and Content Aware Correlation Filter for Visual Tracking, to appear in **IEEE TIP**, 2020.

- Haibo Li, Liqing Gao, **Ruize Han**, Liang Wan, Wei Feng. Key Action and Joint CTC-Attention based Sign Language Recognition, in **ICASSP**, 2020.

- Qing Guo, **Ruize Han**, Wei Feng, Zhihao Chen, Liang Wan. Selective Spatial Regularization by Reinforcement Learned Decision Making for Object Tracking, **IEEE TIP**, 2020.

- **Ruize Han**, Wei Feng, Jiewen Zhao, Zicheng Niu, Yujun Zhang, Liang Wan, Song Wang. Complementary-View Multiple Human Tracking, in **AAAI** 2020.

- Kuan Li, Yi Jin, Muhammad Waqar Akram, **Ruize Han** , Jiongwei Chen. Facial expression recognition with convolutional neural networks via a new face cropping and rotation strategy. The Visual Computer, 2020.

- Wei Feng*, **Ruize Han***, Qing Guo, Jianke Zhu, Song Wang. Dynamic Saliency-Aware Regularization for Correlation Filter-Based Object Tracking, **IEEE TIP**, 2019. (*Joint First Author*)

- **Ruize Han**, Qing Guo, Wei Feng. Content-Related Spatial Regularization for Visual Object Tracking, in **ICME**, 2018. (*Best Paper Award*)

- Qian Zhang, Fei-Peng Tian, **Ruize Han**, Wei Feng. Near-Surface Lighting Estimation and Reconstruction, in **ICME**, 2017.

- **Ruize Han**, Yujun Zhang, Wei Feng, Jiewen Zhao, Liang Wan, Song Wang. Multiple Human Association between Top and Horizontal Views via Spatial Distributions. In arXiv 2020.

🏆 Honors and Awards

National Graduate Scholarship	2018
ICME Best Paper Award	2018
Excellent Dissertation of Hebei University of Technology	2016
National Encouragement Scholarship	2015

☰ Academic Services

- Reviewer of conference: IJCAI-20, ICIP-18
- Reviewer of journal: Neurocomputing, Pattern Recognition Letters, Electronic Letters

🏷 Miscellaneous

- Interests: Badminton, Board Game
- Programming Languages: MATLAB > Python > C++
- Languages: English (CET-6)