Yuhao Cheng

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Education

- Bachelor：
  - School & Major: Beijing University of Posts and Telecommunications, Internet of Things Engineering (**Rank Top 10%**)
- Master：
  - School & Major: Beijing University of Posts and Telecommunications, Computer Technologies (**Recommended without exams**)

Publications

- **Yuhao Cheng**, Wu Liu, Pengrui Duan, Jingen Liu, Tao Mei. PyAnomaly: A Pytorch-based Tool for Anomaly Detection. ACM Multimedia 2020
- Bao Q, Liu W, **Cheng Y**, et al. Pose-Guided Tracking-by-Detection: Robust Multi-Person Pose Tracking[J]. IEEE Transactions on Multimedia, 2020.
- Weijian Ruan, Wu Liu, Qian Bao, Jun Chen, **Yuhao Cheng**, Tao Mei. POINet: Pose-Guided Ovonic Insight Network for Multi-Person Pose Tracking. ACM Multimedia 2019: 284-292

Open-Source Projects

- PyAnomaly
  - Project Page：**https://github.com/YuhaoCheng/PyAnomaly**
  - **Introduction:** PyAnomaly is used for the task of detecting the anomaly events in videos. That task aims to locate and distinguish the abnormal events in test data, only training with normal data (and a few abnormal data). This task has a wide application in Smart City, Automatic Drive, and Video Understanding, however, we don't have an open-source project containing the SOTA methods. **PyAnomaly is the first one**. Meanwhile, PyAnomaly can be easily extended by researchers and engineers because it bases the characteristics of anomaly detection to standardize the project's structure, build the abstract classes, define the pipeline of processing data, and has the detailed documents. **I contribute all of the codes of this project.**
- PoseTrack
  - Project Page：**https://github.com/JDAI-CV/PGPT**
  - Introduction: PGPT is an open-source project of Pose-Guided Tracking-by-Detection: Robust Multi-Person Pose Tracking. PGPT wishes to solve the problem of tracking the human pose in videos, which faces many challenges. These include how to track the human in a long time accurately, and how to match the TrackingID with the human pose accurately. PGPT solves these challenges to some extent, and our result of PoseTrack competition keeps the **1st place** on the Leader Board in 2018-2019. **The code is contributed by the other student in the lab and me.**
- Please browse other open-source projects on: **https://github.com/YuhaoCheng**

Honors & Awards

- The MCM/ICM **Meritorious Winner** in 2016
- 2019 CVPR Image-based Multi-pose Virtual Try-on Challenge **2-nd place reward**
- Final year project of bachelor, "*An IoT system for smart building monitoring*", gets the BUPT and QMUL **Outstanding Project Prize**
- The 2018 QMUL **Undergraduate College Prize**
- The Degree with **First Class** Honors of QMUL
- The scholarship in continue Two years in Bachelor period
- The first class scholarship in continue Two years in Master period
- The Merit student in 2014-2015 academic year

Intern experience

07/2017 - 08/2017 Lenovo(Beijing) SPTC/BTIT

a) Assist engineers to build the model of predicting the fault types of users' machines based on the dialogue between users and engineers.
b) Learn the TensorFlow to implement the model of judging the fault types.

04/2018 – 06/2018 DeepAIT Cooperation

a) Construct the model of human pose estimation running on mobile devices
b) Take part in the project of estimating human poses in videos by using *OpenPose*

07/2018 - Present JD.com(Beijing) AI Research

a) Participate 2019 CVPR Image-based Multi-pose Virtual Try-on Challenge, mainly take charge of the usage of human pose
b) Participate the project of building sports icons based on human poses
c) Participate the research of human pose estimation in videos
d) Participate the project of accelerating the pose estimation models
e) Participate the contribution work of ACM MM, CVPR ECCV and TMM

Activities

- Undergraduate Training Program for Innovation and Entrepreneurship
  a) Take part in "*The research and implement of Dagehuo Partner Social Network*" project
  b) Take charge of the planning of the project, the coding of the Website and part of the programs of the Server
- Exchange activities abroad
  a) Was selected from the ***Top 10%*** students and went to the UK to participate the activities in QMUL
- Teaching Assistant
  a) Be lecturers of the Course Tutorial for many times in Bachelor period

Skills

- Master Python and PyTorch
- Know how to use the Docker and how to write DockerFile well；
- Know Object-oriented programming languages such as C++;
- Know Tensorflow；