

Video Analytics

craig pritchard

Real-time video analytics has many applications in the smart cities. In this post, I survey the recent papers [1–7] that expand on the real-time video analytics.

1. Introduction

2. Motivation

3. Challenges and Opportunities

References

- [1] Ganesh Ananthanarayanan, Paramvir Bahl, Peter Bodík, Krishna Chintalapudi, Matthai Philipose, Lenin Ravindranath, and Sudipta Sinha. Real-time video analytics: The killer app for edge computing. *computer*, 50(10):58–67, 2017.
- [2] Peng Liu, Bozhao Qi, and Suman Banerjee. Edgeeye: An edge service framework for real-time intelligent video analytics. In *Proceedings of the 1st International Workshop on Edge Systems, Analytics and Networking*, pages 1–6, 2018.
- [3] Hannaneh Barahouei Pasandi and Tamer Nadeem. Collaborative intelligent cross-camera video analytics at edge: Opportunities and challenges. In *Proceedings of the First International Workshop on Challenges in Artificial Intelligence and Machine Learning for Internet of Things*, pages 15–18, 2019.
- [4] Hannaneh Barahouei Pasandi and Tamer Nadeem. Convince: Collaborative cross-camera video analytics at the edge. *arXiv preprint arXiv:2002.03797*, 2020.
- [5] Xukan Ran, Haolanz Chen, Xiaodan Zhu, Zhenming Liu, and Jiasi Chen. Deepdecision: A mobile deep learning framework for edge video analytics. In *IEEE INFOCOM 2018-IEEE Conference on Computer Communications*, pages 1421–1429. IEEE, 2018.
- [6] Junjue Wang, Brandon Amos, Anupam Das, Padmanabhan Pillai, Norman Sadeh, and Mahadev Satyanarayanan. Enabling live video analytics with a scalable and privacy-aware framework. *ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)*, 14(3s):1–24, 2018.
- [7] Shanhe Yi, Zijiang Hao, Qingyang Zhang, Quan Zhang, Weisong Shi, and Qun Li. Lavea: Latency-aware video analytics on edge computing platform. In *Proceedings of the Second ACM/IEEE Symposium on Edge Computing*, pages 1–13, 2017.