Head Count Detection Using Apache Mesos

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By deploying our face detection application utilizing Apache Mesos, we will try to achieve high throughput by parellalizing processing of images for head count task on multiple nodes each having thousand of pictures.

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https://github.com/cloudmesh/sp17-i524/tree/master/project/S17-IR-P011

1. INTRODUCTION

Counting the number of people in a image has been a challenge in the field of computer vision [1]. Given a huge number of images, finding the number of people in each image can become a cumbersome task. We try to solve this issue using our distributed approach utilizing power of Apache Mesos [2] , where services have to be deployed (TBD). We run the OpenCV [3] face detection algorithms on smaller data in multiple nodes and obtain the head count of the people in each picture.

2. WHY MESOS?

Mesos can be used to implement a decentralized scheduling approach. In this approach each framework decides which offers to accept or reject. There are many incentives that are provided by any decentralized system. The incentives provided by Apache Mesos system includes short tasks, no minimum allocation, scale down and not accepting unknown resources [4].

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