Nicolò Bertozzi, Francesco Bianco Morghet

Machine Learning and Deep Learning

Master Degree in Data Science Engineering

Politecnico di Torino

First Person Action Recognition

Project Description 2nd Semester | 10 July 2020

Table of Contents

Introduction

Overview

Introduction

PAR Introduction

Introduction 1/4

Goal:

- · Record videos with the same cameraman's point of view;
- Recognize the actions performed by the subject;

PAR Introduction

Introduction 2/4

Interested Areas:

- · Android intelligence;
- · Autonomous driving;
- Surveillance;
- Loyalizing users' experience;



PAR Introduction

Introduction 3/4

Issues:

- · Small datasets:
- · Presence of parts of the cameraman's body in the video;
- The action must be represented by a verb + noun;

Introduction 4/4

Solutions:

- Sales of wearable devices;
- Incrementing chance of having at hand a camera;
- Incrementing number of images taken every day [1];
- Deeper neural networks;

References



Caroline Cakebread

"People will take 1.2 trillion digital photos this year — thanks to smartphones"

Businessinsider.com, 1 September 2017

Available at:

https://www.businessinsider.com/12-trillion-photos-to-be-taken-in-2017-thanks-to-smartphones-chart-2017-8?IR=T

The End

Thank you for your attention!

Nicolò Bertozzi Francesco Bianco Morghet

> FPAR Project | MLDL 10 July 2020