



## Treppen Detektierung - Daten/Bilder

Practical Course Computer Vision for Human-Computer Interactionn Yang Zhang, Chris Konop, Jasper Zimmer | 31. Mai 2017

#### COMPUTER VISION FOR HUMAN-COMPUTER INTERACTION LAB



## **Outline/Gliederung**



- 1 Labeling
  - LabelMe Annotationstool
- 2 Daten
  - Flickr
  - Beispiele
  - Verhältnis BoundingBox vs. Bild Größe
  - Verhältnis Polygon vs. BoundingBox Größe



#### LabelMe - Übersicht



- Online Annotationstool
- Web Frontend
- Vorgabe von Labels, z.B. Stairs
- Annotation durch Polygone



#### LabelMe - Frontend





You are: cvhci (change user)

Polygons in this image (1) Reveal unlabeled pixels Hide all polygons

Drag a tag on top of another one to create a part-of relationship.

stairs



## LabelMe - Polygon





### LabelMe - Annotationen(XML)



```
<polygon>
    <username>cvhci</username>
    <pt>
        < x > 352 < / x >
        <y>162</y>
    </pt>
    <pt>
        < x > 47 < /x >
        <y>657</y>
    </pt>
    <pt>
        < x > 915 < / x >
        <y>718</y>
    </pt>
    <pt>
        < x > 827 < / x >
        <y>162</y>
    </pt>
</polygon>
```



#### **Flickr**

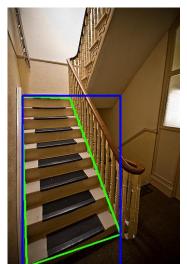


- Suchbegriffe: Treppe, Rolltreppe, Steps, Stairs, Staircase,
   Escalator
- Bilder insgesamt: 23949
  - davon nur 58 Duplikate(Hash)
  - davon ca. 30% unbrauchbar
- Bisher 3013 Bilder gelabelt







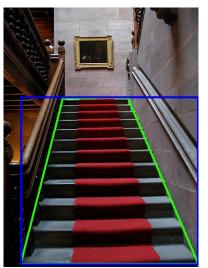




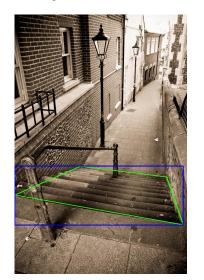


















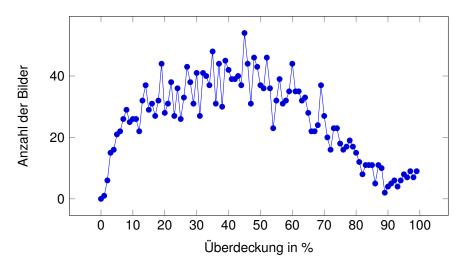






## Verhältnis - BoundingBox vs. Bild Größe

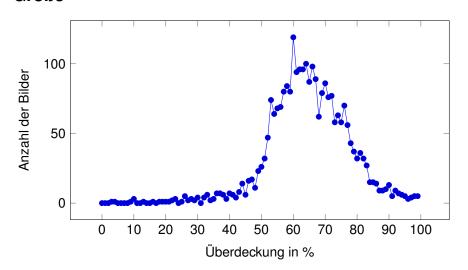






# Verhältnis - Polygon vs. BoundingBox Größe





#### References I

