**FEATURES REFERENCES**

**GENERAL**

1. TED talk by Fei Fei Li (Stanford) on computers understanding pictures <https://youtu.be/40riCqvRoMs?list=PLNL0bbRjhNhDmIzUoIfijD5s4T9vreP9Q>

**SHAPE**

1. Simple shape detection<https://pysource.com/2018/09/25/simple-shape-detection-opencv-with-python-3/>
2. Real time shape detection <https://pysource.com/2018/12/29/real-time-shape-detection-opencv-with-python-3/>

**MOMENTS**

1. Geometric properties of binary images <https://youtu.be/ZPQiKXqHYrM>
2. Intro to image moments <https://www.youtube.com/watch?v=AAbUfZD_09s>
3. Mathematical basis of moments <https://youtu.be/ISaVvSO_3Sg>
4. Hu moments <https://youtu.be/uEVrJrJfa0s?list=PLNL0bbRjhNhDmIzUoIfijD5s4T9vreP9Q>
5. Visualizing Zernike moments <https://youtu.be/ESr3Uiqt4xs>

**HOUGH TRANSFORMS**

1. How Hough Transforms work: <https://www.youtube.com/watch?v=4zHbI-fFIlI>
2. cv2.HoughLinesP() Function: <https://docs.opencv.org/3.4/dd/d1a/group__imgproc__feature.html#ga8618180a5948286384e3b7ca02f6feeb>
3. cv2.HoughCircles() Function: <https://docs.opencv.org/3.4/dd/d1a/group__imgproc__feature.html#ga47849c3be0d0406ad3ca45db65a25d2d>

**PYTHON BASICS**

1. Creating and using functions <https://youtu.be/NSbOtYzIQI0>