

Plankton Classification of WHOI

Jinna Cui

Vision Lab of OUC

2016.11.28

Table of contents

- 1 Introduction of WHOI
- 2 Introduction of Neural Network Architecture
- 3 Results of My Experiments

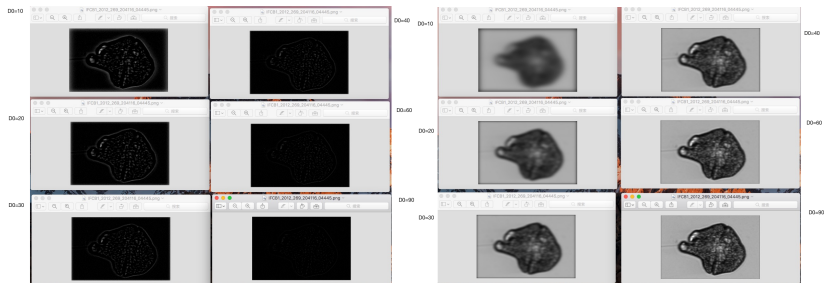
Introduction of WHOI

WHOI

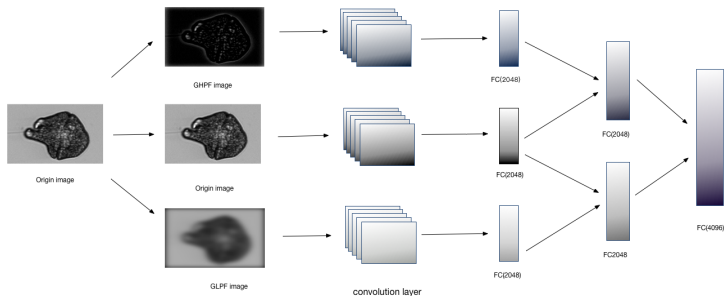
Large: 103 classes more than 3.56 millions images

Imbalance: 5 large classes

Filter



Architecture of Neural Network



- Convolutional Neural Network
- 3 channels (share same label)
- Pyramid fully connected structure

Experiments Results

| Models | Accuracy |
|--------------------------------------|----------|
| AlexNet trained on origin images | 93.58% |
| AlexNet trained on 3 channels images | 94.21% |

Table: Experiments Results of Plankton Classification

Thanks for your attention !

Q & A