

the laboratory tests on algae Currently identification and counting for water sample is done by manual inspection under a microscope. Given the diverse species and similar morphology of algae, manual Al algae classification result becomes timeconsuming and error-prone. Anavision develops computer vision-based CNN detection algorithms based on extensive manual professionals labelling that guarantees a high output accuracy. By using Al, we can automate the process of detecting harmful algae in water samples, and provide consistent and accurate results. Customized system takes the algae diversity into account and classify specific algae on your needs. The output includes labelled images, statistics result, and summary report.

# **FUNCTION OVERVIEW**

Customized

Specific recognition algorithms will be designed to fulfill the algae diversity

**Efficient** 

Simple operation method and fast result output with simultaneous identification of 28 algae species

Automated

Web-based interface will address your microscopic images automatically

Accurate

Sophisticated annotations take algae's irregular shape into account by tracing its boundary for higher accurate output

# **CONTACT US**





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# WHY ANAVISION



#### 01 Diverse algae species counting

Identify 28 types of algae species simultaneously. Accuracy improves when "Retrain" exercise is being done properly. Difficulty of algae sample collection due to the high diversity will be resolved by our image augmentation technique.



### 02 Scalable Imagery Detection Output

Train AI to identify what types of algae on the occasion instead of collecting water sample and analyze manually by experts. Detected algae will be highlighted with different colors and marked with corresponding algae types and confidence levels in each respective position.

### **USER INTERFACE**

A web-based algae detection system provides
Drag and Drop feature for file import



 Drag the microscopic images and system will identify 28 types of algae simultaneously



• The AI detection model will detect and count different algae species automatically and generate report as records



## **USE CASE AND SCENARIO**



- 1. Water quality surveillance for drinking water safety and human health
- 2. Automatic monitoring of harmful algae presence to prevent negative consequences of algal blooms
- 3. Mobile system automates the detection process with consistent and higher accurate output results
- 4. Early warning predicts harmful algae bloom to be under control
- 5. Automated regulation protects an clean aquatic ecosystem

# **ABOUT ANAVISION**

Founded in 2019, Anavision is a Hong Kong-based technology company with leading solutions in computer vision, remote sensing and machine learning. We create strategic data solutions across industries, including but not limited to forestry, construction and infrastructure.