STUDYING PHYTOPLANKTON TRENDS IN OCEANS USING DATA SCIENCE
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THE PROBLEM
A computational study of the community structure of phytoplankton over a large geographical area

IT IS IMPORTANT TO UNDERSTAND PHYTOPLANKTON BECAUSE

O₂
They produce half the world's oxygen content

They are the base of the marine food chain

They indicate the health of an aquatic ecosystem

Myria

Flow cytometer performs multiparametric analysis on a given unit of seawater using the following parameters:
1. Forward Scatter
2. Phycoerythrin Fluorescence
3. Chlorophyll Fluorescence

RESULTS
Through Principal Component Analysis, we conclude that the data can be divided into two clusters. The clusters of phytoplankton become relatively sparse with an increase in temperature and salinity.