

# WQEye: A Python-based Software Aided by Google Earth Engine for Machine Learning-based Retrieval of Water Quality Parameters from Sentinel-2 and Landsat-8/9 Remote Sensing Data

## 1. Installation Guidelines

**Note:** If you encounter any installation issues, please report them by opening a new issue on our GitHub repository. The development team will respond as soon as possible.

### 1.1. Clone the Repository

Open your terminal (for example in Visual Studio Code) and run:

```
git clone https://github.com/ATDehkordi/WQEye.git
cd WQEye
```

### 1.2. Set Up a Dedicated Environment

We recommend using Anaconda to manage your Python environment:

```
conda create -n WQEye python=3.12
conda activate WQEye
```

### 1.3. Install Required Dependencies

Run the following command to install all required packages:

```
pip install -r requirements.txt
```

**\*\*** Before running the software, you must provide **GEE user credentials**. A detailed tutorial to how provide this information is explained in *docs/GEEusercredential.pdf*.

### 1.4. Launch WQEye

Start the WQEye graphical interface by running:

```
streamlit run app.py
```

**Note:** The first time you run Streamlit, it might ask for your email address. You can simply skip this by pressing Enter. Once launched, WQEye will open automatically in your default web browser at <http://localhost:8502>