Water Analysis System

GPU-accelerated water quality analysis system using Apache Spark.

Quick Start

```bash
# Clone repository
git clone https://github.com/t1p0k/water-analysis-system.git
cd water-analysis-system

# Deploy all services
docker-compose up -d

# Check status
docker-compose ps
```

Services

- **Spark Master**: http://localhost:8080
- **Spark Worker**: http://localhost:8081
- **API**: http://localhost:8000
- **Streamlit UI**: http://localhost:8501
- **Grafana**: http://localhost:3000 (admin/admin)
- **Prometheus**: http://localhost:9090

Docker Images

All images are available on Docker Hub:

- t1p0k/water-analysis-system-spark-master
- t1p0k/water-analysis-system-spark-worker
- t1p0k/water-analysis-system-api
- t1p0k/water-analysis-system-streamlit
- t1p0k/water-analysis-system-spark-runner

Stop Services

```bash
docker-compose down
```