Summer of Weather Code: Innovative developments at ECMWF

UEF 2021

Esperanza Cuartero
User Outreach and Engagement Team
IV Edition of ECMWF’s Summer of Weather Code 2021

**ESoWC**

**Summer of Weather Code**

Team up with meteorology, climate, atmosphere, machine-learning and cloud computing experts to develop innovative open-source software

**FROM FEB 1ST 2021**

**TO SEP 29TH 2021**

#ESoWC2021

£5,000 STIPEND

https://esowc.ecmwf.int

**Online programme to promote**

**opensource and innovative**

related-**software**

**Organized by ECMWF and supported by**

**Cloud computing resources provided by**

and
How ESoWC 2021 works

13 technical challenges proposed by ECMWF and Copernicus staff related to daily operations at the Centre

Now

4 months long-coding phase when mentors and participants team-up and work closely on the project implementation

Out of 19 submissions, 8 projects were selected to be developed

- A virtual event to showcase the final software developments
- £5000 stipend
What are **ESoWC 2021 projects** about?

### 1 Machine Learning

**ML4Land**: Using Earth’s observation data, climate reanalysis and ML to detect Earth’s heating patterns.

**MaLePom**: ML model to estimate emissions.

**CliMetLab**: Extend the new Python ML package to simplify access to weather and climate datasets.

**AQ-Bias Correction**: Bias correction of CAMS model forecast for air quality by using in-situ observations.

### 2 Data visualization

**MaLePom**: Using Earth’s observation data, climate reanalysis and ML to detect Earth’s heating patterns.

**MaLePom**: ML model to estimate emissions.

**MaLePom**: Extend the new Python ML package to simplify access to weather and climate datasets.

**Elefridge.jl**: Compressing atmospheric data into its real information content.

### 3 Software development and big data

**ECMWF User Dashboard**: Providing users with a dashboard to showcase their relationship with ECMWF.

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**Elefridge.jl**: Compressing atmospheric data into its real information content.
Learn about #ESoWC2021

ALL CHALLENGES ARE LISTED AND DESCRIBED ON GITHUB

github.com/esowc/challenges_2021

YOU CAN FIND ALL INFORMATION ABOUT ESoWC ON OUR WEBSITE

esowc.ecmwf.int

ECMWF Summer of Weather Code
503 Tweets

ESoWC
3 Category Streams | 13 Challenges

ESoWC2021

@ECMWF
Summer of Weather Code (ESoWC) is an online programme open to anybody keen to develop innovative weather-related software. #ESoWC2021