

## **GraphCast Weather Model**

**Task :** GraphCast operates in a dynamic and complex task environment, where it processes vast amounts of atmospheric data to generate accurate and timely global weather forecasts.

### **Performance:**

The system's performance is evaluated based on the accuracy, speed, and reliability of its weather predictions compared to traditional forecasting methods.

### **Environment:**

GraphCast interacts with the global atmospheric and environmental data, including temperature, pressure, humidity, wind patterns, and other meteorological variables.

The system operates in a real-world setting, receiving input from various weather monitoring stations, satellites, and other data sources.

### **Actuators:**

GraphCast:Utilizes computational resources to process and analyze large volumes of weather data.Generates visual representations and communicates weather forecasts to end-users through various platforms and applications.

actuators include:

- Display interfaces - displays might include web interfaces, mobile apps, or dedicated weather forecasting devices.
- Alert systems - Actuators could trigger alerts or notifications to users based on forecasted weather conditions. These alerts might be in the form of push notifications, emails, or text messages.
- Automated response systems - for example controlling irrigation systems based on expected rainfall or adjusting heating and cooling systems in buildings based on temperature predictions.
- Communication channels - Actuators could facilitate the transmission of weather forecasts through various communication channels such as social media, SMS, or voice assistants.
- Data visualization tools - Actuators could control the generation of visual representations of weather data, such as graphs, charts, or maps, to aid in understanding and decision-making.

### **Sensors:**

**Input Sensors:** GraphCast utilizes a wide array of sensors, including weather stations, satellites, and remote sensing devices, to collect real-time data on atmospheric conditions.

**Output Sensors:** The system may utilize output sensors to monitor the impact and accuracy of its forecasts, such as feedback mechanisms from weather observation networks.

## **B.spam email classifier**

aims to develop an efficient email spam classifier utilizing machine learning techniques. By leveraging a dataset comprising labeled emails as spam or non-spam, we plan to train a classification model that accurately distinguishes between the two categories spam or legitimate.