

# Weekly Progress Report

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Domain: **DATA SCIENCE AND MACHINE LEARNING**

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**Week Ending: 01**

## **I. Overview:**

This week, the primary focus was on understanding USC\_TIA and contributing to Python projects. Additionally, efforts were made to leverage learning resources for skill enhancement.

## **II. Achievements:**

### **1. USC\_TIA Familiarization:**

- Explored USC\_TIA documentation to grasp core functionalities.
- Successfully executed basic tasks, showcasing initial proficiency.

### **2. Python Project Contributions:**

**Name of the project:-**

#### **Prediction of Agricultural Crop Production in India**

- Contributed code to **Prediction of Agricultural Crop Production in India** with a focus on **Data Cleaning of the various datasets of agricultural produce,crops during a season etc**
- Engaged in effective collaboration with team members.

### **3.Learning Python:**

- Acquired proficiency in essential Python libraries, such as **NumPy and Pandas**
- Applied Python skills to real-world problems within USC\_TIA context.

### III. Challenges:

#### 1. USC\_TIA Integration:

- Encountered challenges during USC\_TIA integration with **Visual Studio Code**
- Ongoing efforts to troubleshoot and ensure successful integration.

#### 2. Python Project Complexity:

- Faced complexity in understanding **the data which is relevant to the training of the model and to an attempt to reproduce a data in cleaned format for better accuracy score of the model prediction** of the Python project.
- Seeking guidance to overcome challenges and enhance understanding.

### IV. Learning Resources:

#### 1. USC\_TIA Documentation:

- Utilized USC\_TIA official documentation for reference and troubleshooting.
- Attended relevant webinars and online tutorials to deepen understanding.

#### 2. Python Learning Resources:

- Engaged with **UpSkill for datasets and AI models such as Claude Anthropic to debug certain complex areas.**

### V. Next Week's Goals:

#### 1. USC\_TIA Enhancement:

- Address integration challenges and explore advanced USC\_TIA features.
- Collaborate with peers to contribute to USC\_TIA improvement discussions.

#### 2. Python Project Development:

- Tackle more complex tasks within the Python project to increase contribution.
- Seek feedback from mentors and peers for continuous improvement.
- **An attempt to train an efficient and best accurate model based on the cleaned**

**datasets**

**VI. Additional Comments:**

- **Cleaning the datasets this week has made me improve so much on the pandas side of the process**
- **Next week I will try to get deeper into the scikit side of the process whilst training the model**