

## Bi-Weekly Report #4

### -----Blockchain Portion-----

#### **Timeline:**

Near completion of the prototype for the project.

#### **Technologies Utilized:**

Truffle, Ganache, Metamask, React, Web3

#### **Process:**

We used React to create our front end dapp to communicate with the blockchain in the backend through Web3. Metamask serves as a bridge that allows you to visit the distributed web. Truffle and Ganache are used to host a personal Ethereum blockchain which allows us to run test, execute smart contracts and inspect how the chain operates. Users are currently able to send and store data on the blockchain through our React Dapp and get data from the Blockchain

#### **Foreseeable Plans:**

Migration from the testing environment on to Azure Blockchain Service or Workbench. Adding more features into the Dapp such as different sectioning for storing data and a more user-friendly way to get data.

### -----Augmented Reality Portion-----

#### **Timeline:**

Manage to create a prototype of a Unity AR mobile app but is still in the process of displaying the 3D model stored on the blockchain on the Unity App.

#### **Technologies Utilized:**

Unity

#### **Process:**

We plan to store the 3D model offsite and store the hashing or URL of the model on the blockchain as the storage size for each transaction on the blockchain is limited. However, we are sceptical if this will jeopardize the idea of immutability our project plans to deliver as the 3D model is store offsite and will be vulnerable alterations.

#### **Foreseeable Plans:**

Solve the problem of storage of 3D models and finding a way that allows us to track the cycle of the project through the data stored on the blockchain.

-----Front-End Documentation-----

**Timeline:**

Created a website that includes the aim of the project, research we have done, timeline, and relevant documentations etc.

-----Challenges-----

**Development on Azure due to cost of deployment:**

The price of deploying the Azure Blockchain Service is quite pricy with the Basic pricing being around 143.16/month and Standard pricing around 897.58/month.