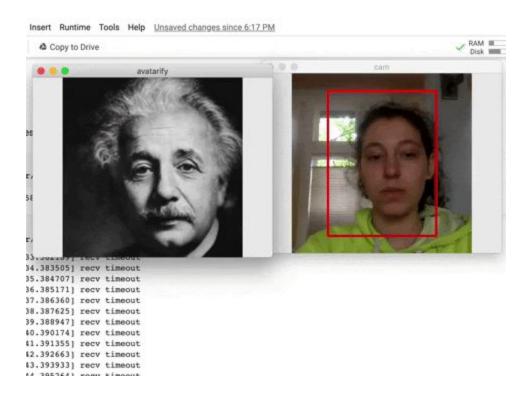
TEAM1 AI01

3 month plan for the track

We are going to be building <u>Avatarify</u>, which is written in TensorFlow.js and enables us to superimpose our face with that of someone else and broadcast the stream on a call/video



Watch Avatarify in action here (ft. Elon Musk)

We have monthly milestones to designate the work that has to be completed in that time period. We also have weekly deadlines for the work that has to be completed till then. After each week, relevant tasks will be assigned to the team members to complete that will be used to gauge their progress throughout the course of this program.

June

Milestones: Learning more about Avatarify

Week 1: Team Introduction

This will be an introductory week where the goal would be to get to know the participants better and their skill sets and how they can contribute to the development of the project

Week 2: Python for AI/ML basics

We will be covering the basics of AI and ML in Python. This will be done so that participants who are not acquainted with the basics can also get started with the program. If needed more time can also be allocated to the basics.

Week 3: Deciding project and basics

We will once again be covering the basics, but this time specifically from a project point of view. So we will be delving deeper into the GANs and Style GANs which will be used by us in the course of the project and studying more about them.

Week 4: Dataset Collection

Everyone will have to collect the data that will be required for training the network, which in this case would be pictures of their role model whom we can make an avatar for

July

Milestones: Transfer learning on existing model for Avatarify

Week 1: Cleansing & Analysis

The focus for this week will be on statistics and methods of Data Manipulation. We will be processing the dataset that we have collected and making it ready for the model. We will also be learning about data manipulation techniques that are used in Al/ML

Week 2: Feature Extraction || Visualization Tools

For this week we will be focussing on extracting the features of the face from the dataset. We will also be learning about the various visualisation tools that are available

Week 3: Learning about various types of models & techniques

This week we will be studying the different types of models that are used in AI and ML and why each one of them is important. There are different models for different purposes.

Week 4: Building the model

We will start building the model from this week

August

Milestones: Testing the model

Week 1: Building Models & Validation

We will be continuing to build the model and carry out validation of the model.

Week 2: Testing & Comparative Analysis of various Techniques

We will be testing the performance of the model. We will also be training it on various platforms and see where it can perform faster and with lesser latency.

Week 3: Deploying the model

We will finally be deploying the model using Google Colab

Week 4: Final presentation and review

We will be creating the final presentation of the group along with all reports

Role of Mentor: Keep arranging learning & performing sessions, assign daily tasks **Role of Mentees/Participants**: Attend sessions, complete daily tasks & submit, research.

For more information about the various roles on the Uplift Project, click here

Resources

GitHub basics

Introduction to GitHub
Communicating using Markdown

TensorFlow introduction

TensorFlow Introduction (Coursera)

TensorFlow Specialisation (Coursera)

TensorFlow.js Blog

TensorFlow.js Documentation