

MICHIGAN STATE

UNIVERSITY

Beta Presentation

Aircraft Appearance Assessment Tool

The Capstone Experience

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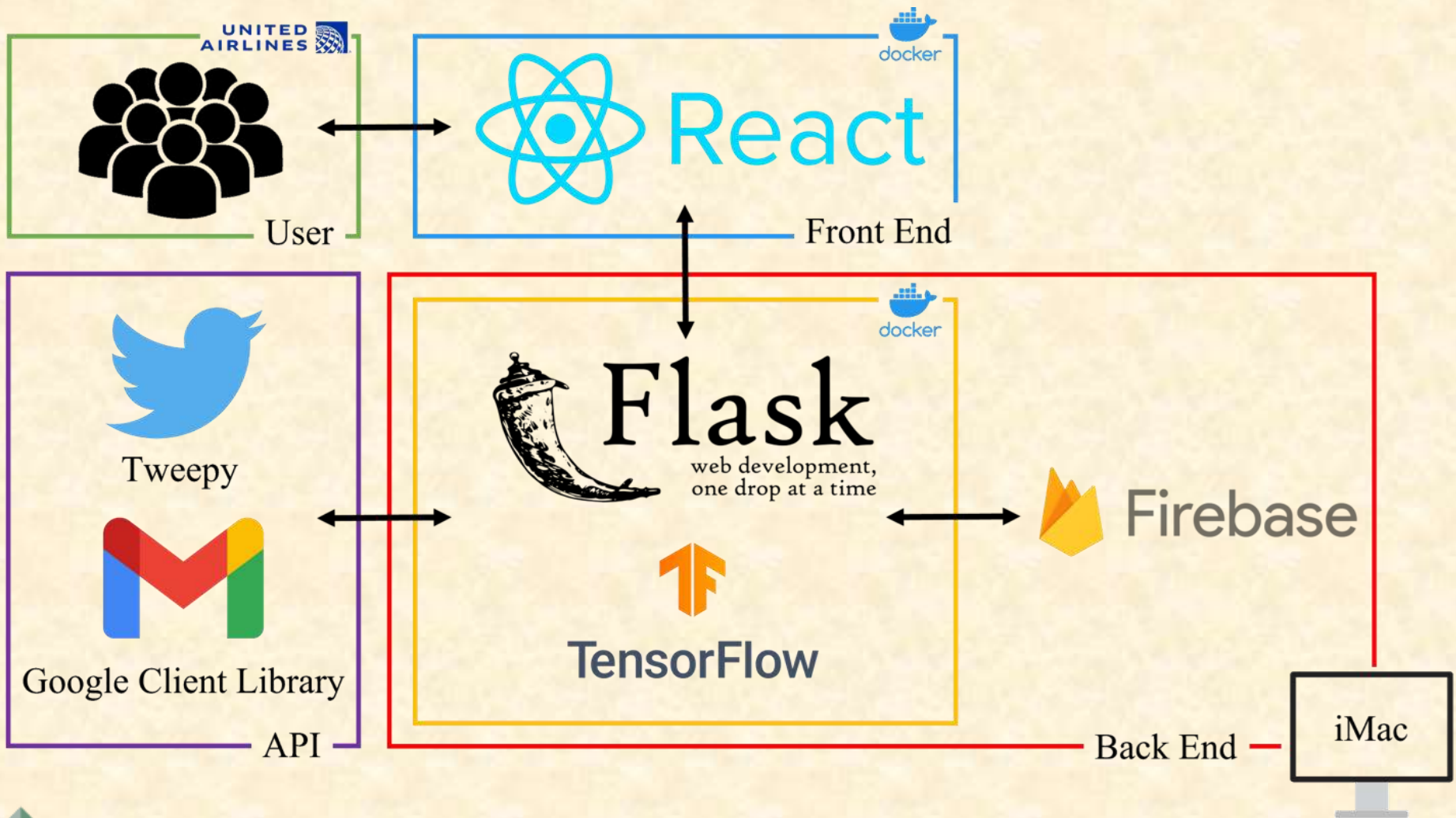
*From Students...
...to Professionals*

Project Overview

- Automatic paint quality assessment of aircraft exteriors
 - Manual uploads
 - Gmail
- Search for aircrafts with specific identification number
- Sentiment analysis of tweets with images
- Interior/Exterior classification of images from Twitter



System Architecture



Edit Window

The screenshot shows a web application interface for 'Aircraft Appearance Assessment'. The main content is a table of tweets with columns for Action, Picture, Caption, Post Date, Flight Number, Origin, Destination, Picture reference, Category, Flight Date, Account, Sentiment, and Status. An 'Edit' modal window is open over the table, allowing users to update the 'Title', 'Aircraft Number', 'Depart', 'Arrive', 'Status', and 'Category' for a selected tweet. The modal includes a 'Save' button and an 'Updating...' indicator.

Action	Picture	Caption	Post Date	Flight Number	Origin	Destination	Picture reference	Category	Flight Date	Account	Sentiment	Status
Edit		caption on the 01/08/2023	2023-04-03T12:26:35.000Z	N/A	N/A	N/A	jet	N/A	N/A	mbyanderson	positive	N/A
Edit		caption on the 01/08/2023	2023-03-31T10:00:01.000Z	N/A	N/A	N/A	jet	N/A	N/A	WSourceNews	positive	N/A
Edit		caption on the 01/08/2023	2023-10-29T13:38:30.000Z	N/A	N/A	N/A	jet	N/A	N/A	ChindaKanga	positive	N/A
Edit		caption on the 01/08/2023	2023-04-03T12:26:35.000Z	N/A	N/A	N/A	jet	N/A	N/A	timesfliteapp	positive	N/A
Edit		caption on the 01/08/2023	2023-04-03T12:26:35.000Z	N/A	N/A	N/A	jet	N/A	N/A	timesfliteapp	positive	N/A
Edit		caption on the 01/08/2023	2023-10-30T21:00:28.000Z	N/A	N/A	N/A	jet	N/A	N/A	loctober	neutral	N/A
Edit		caption on the 01/08/2023	2023-03-29T12:30:35.000Z	N/A	N/A	N/A	jet	N/A	N/A	ss_jallians	neutral	N/A
Edit		caption on the 01/08/2023	2023-10-29T18:25:56.000Z	N/A	N/A	N/A	jet	N/A	N/A	ClamDelay	neutral	N/A
Edit		caption on the 01/08/2023	2023-10-29T06:50:54.000Z	N/A	N/A	N/A	jet	N/A	N/A	L_1AM_05	neutral	N/A
Edit		caption on the 01/08/2023	2023-10-29T06:50:54.000Z	N/A	N/A	N/A	jet	N/A	N/A	L_1AM_05	neutral	N/A

Dashboard Page

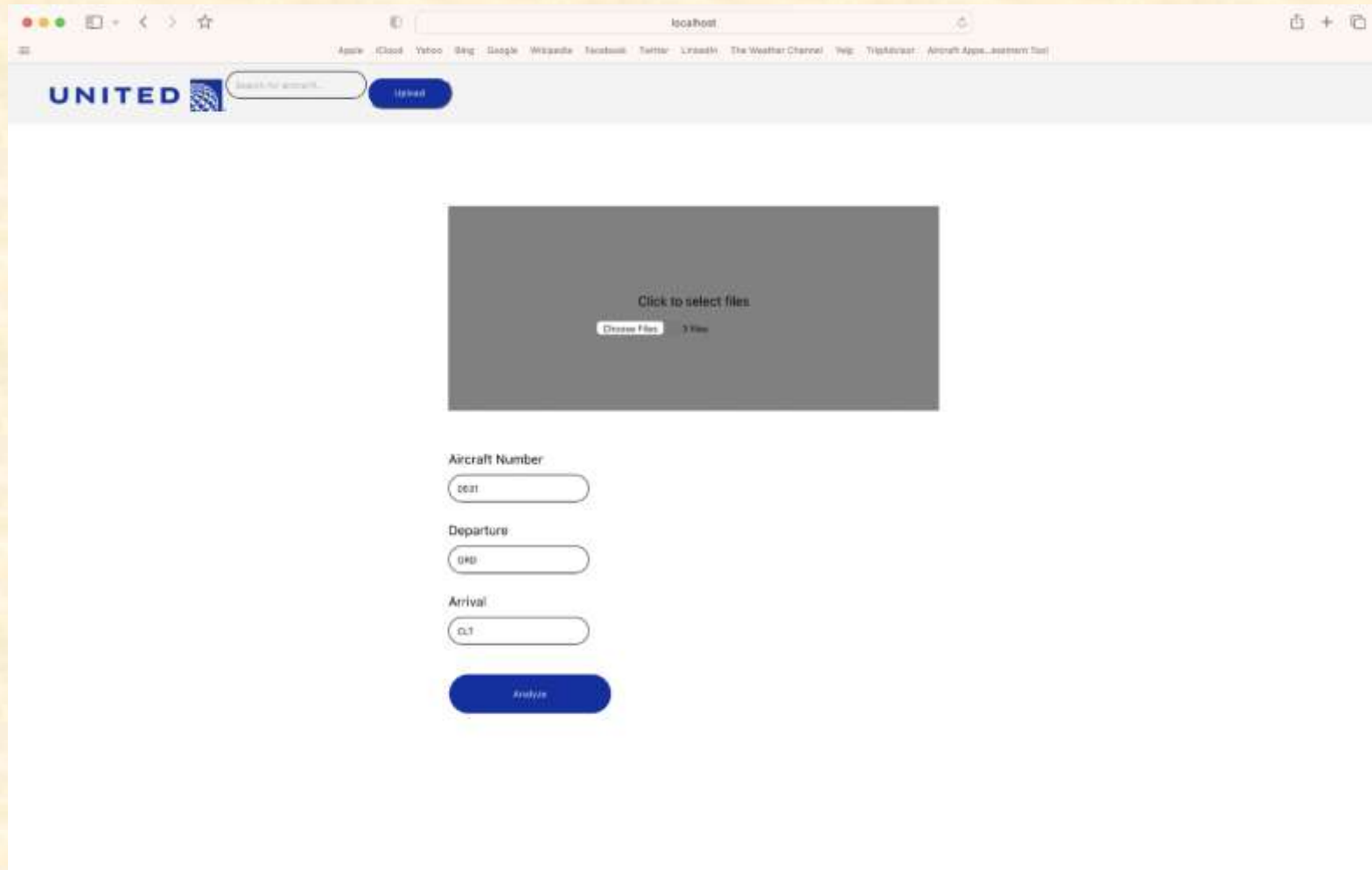
The screenshot displays a web browser window with the URL `35.9.22.17:3000/dashboard/uploads`. The page features the United logo and a search bar. A sidebar on the left contains navigation links for Dashboard, Twitter, Uploads, and Gmail. The main content area shows a table of aircraft appearance assessments with the following data:

Action	Picture	View more	Aircraft Number	Station	Destination	Picture relevance	Category	Sent Date	Score
edit		View more	N/A		N/A			2023-04-03T19:38:07.258614	0
edit		View more	N/A		N/A			2023-04-04T02:01:00.902374	0
edit		View more	1111		N/A		N/A	2023-04-03T18:48:07.218701	0
edit		View more	202		N/A			2023-04-03T19:34:02.303884	0

An "Activate Windows" watermark is visible in the bottom right corner of the screenshot.



Upload Page



Summary Page

The screenshot displays a web browser window with the URL 'localhost'. The browser's address bar shows 'localhost' and the page title is 'Aircraft Appearance Assessment Tool'. The page content includes the United Airlines logo, a search bar with the placeholder text 'Search for aircraft...', and an 'upload' button. Below the search bar, there are three image thumbnails of United aircraft. To the right of the thumbnails, there is an 'Analysis Summary' section with a table listing 'Picture 1', 'Picture 2', and 'Picture 3', all with 'N/A' values. A 'New Upload' button is located at the bottom right of the summary section.

Analysis Summary	
Picture 1	N/A
Picture 2	N/A
Picture 3	N/A



What's left to do?

- Front-End:
 - UI updates
 - Sign out page
- Back-End:
 - Fix performance issues with heavy tasks
- Machine Learning:
 - Fine-tune aircraft paint score model



Questions?

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