

Title (the shorter the better, include key words)

Team Member Names

Faculty Advisor(s): (their name/s), Dept. of ____, Florida Institute of Technology

INSTRUCTIONS

- Do not use a color background
- Keep all content within the gold lines and blue and crimson bars (other than title block and icons)
- Do not change the size of the poster
- Please keep the text readable. The only font allowed is "Calibri". It is available on all Microsoft products . Minimum font size is 48 pts.
- The size is already set to exactly the print size. Please arrange and size all the images and text properly.
- Ensure that all images are at least 300 dpi
- The name of any faculty should be put in as "Dr. [First Name] [Middle Initial]. [Last Name], Dept. Of [name of department], [name of institution]
- Names of any sponsors, mentors, volunteers, helpers, etc. can be put in the acknowledgements section. Put in text only. Do not put in any additional logos in the poster other than the ones already in the template.

Your Poster file should be named as follows:

SHOWCASE_SPRING2024_POSTER_CAPSTONE MAJOR_YOURTEAMNAME*

(Example: SHOWCASE_SPRING2024_POSTER_ME_SUNNUCLEAR)

Note: The project name should be exactly as the registered project name.

***If this is an individual project, please place the title of your project instead of the team name**

Please follow all instructions above.

The submission may be rejected if the formatting guidelines are violated or the file is not properly named.

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NoCap: Fact-Checking with AI

Thomas Chamberlain, Anthony Ciero, Varun Doddapaneni, Joshua Pechan

Faculty Advisor(s): Dr. Marius Silaghi, Dr. Philip Chan, Dept. of Electrical Engineering and Computer Science, Florida Institute of Technology

Motivation/Goal

- Fact checking media is important for properly obtaining information
- Create a website that uses AI knowledge to allow users to fact check an article
- Give these articles an authenticity score and report on what is fact or fiction
- Aggregate scores of articles by the same publisher in a database allowing users to view their scores and article authenticity reports

Approach/Features

- 3 Main Pages **(CONFIGURE IMAGES LATER)**
 - Home Page: Users can input the URL of an article they wish to fact check and shows example articles cards found in our database from a range of scores.
 - Report Page: Shows authenticity report, including article metadata, score from 0 to 100, and a summary and detailed analysis of why that score was given.
 - Database Page: Contains all article reports created by users for viewing, sorted by publisher with aggregate score. Filtering options allow for easy searching.
- Chrome Extension: Allows for authenticity report creation simply by fetching current page URL and opening a popup for viewing, same style as report page.
- Graphical Visualization: Two visualizations for reports:
 - 1. Categorizes article claims as Accurate, Inaccurate, or Partially Accurate
 - 2. Tracks adjective and descriptor usage toward people or entities, showing Positive, Negative, or Neutral sentiment

Design/Implementation

- System Architecture: **EDIT/ADD SYS ARCH IMAGE FROM MILESTONE 1**
- AWS AI Nova Lite: Prompt engineer AWS's Nova Lite model to be used as an article fact checking assistant, only judging factual correctness. Produces a JSON file only returning the authenticity score, summary, and detailed analysis.
- DynamoDB: Used to store the reports so they can be accessed again by anyone from either the database page or inputting the article from the home page.
- AWS Amplify: Used to create a serverless backend to host dynamoDB, our database API.

Evaluation Results

- Performance: Achieves report creation and searching/filtering consistently.
- Speed: ~5 seconds to create an article authenticity report and can retrieve reports stored in the database instantly.
- Accuracy: Feed the current date to the model so scores and reports are more consistently and have a mathematical calculation for them.
- User Surveys: Task users to use different features and rank their experience.

Limitations/Improvements

- Continuous Prompt Engineering: The model can give a rough estimate on the accuracy of the article, continuous prompt engineering will yield better results.

