

# LINANKIS.DIGITAL CHALLENGE

*Presented by: Tasoulis k SIA*



# OUR TEAM



Tilemachos  
Aravanis



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Vozinaki



Dimitris  
Damianos



Anastasis  
Kapetanakis



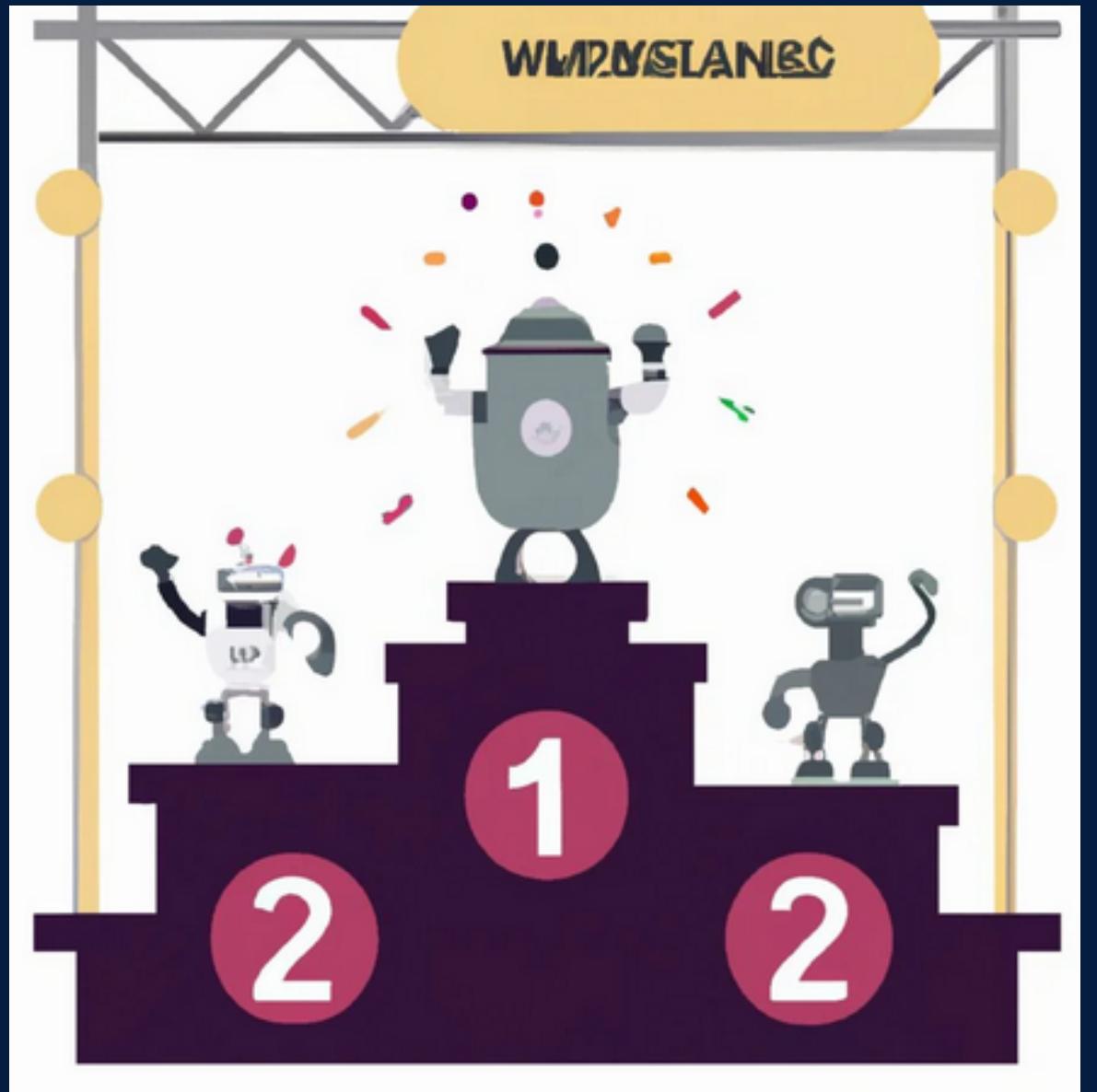
Giannis  
Chatzis

# PROBLEM

Compare and review figma designs and their web implementation, in a frictionless manner which provides information regarding mistakes, mismatches and inconsistencies.

# MOTIVATION

- AI/ML models scale in a rapid way (scalability).
- Classic comparison algorithms are specific and do not scale.





# SOLUTION

## Global Similarity Score



Extract a global similarity score of the Figma design and the web page image

## NLP Analysis



Deploy a LLM to get a global sense of the differences between the two images..

## ObjectDetection Pipeline



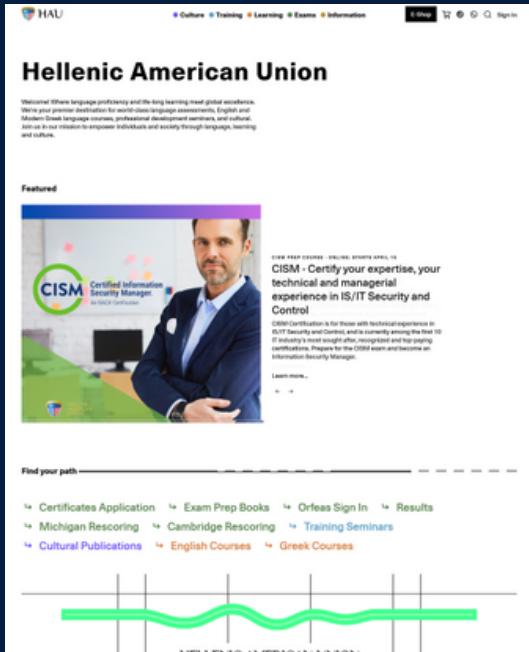
Using object detection and comparing the respective object patches, we find image mismatches.

## OCR Pipeline

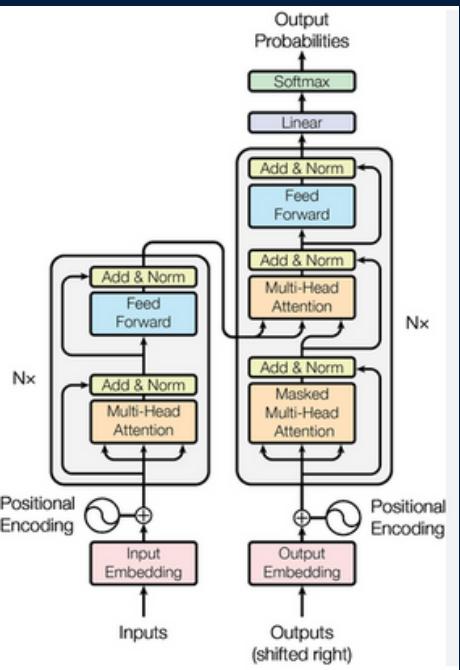


Using Azure's OCR APIs, we extract text from the design and the web implementation and use it to find errors and inco

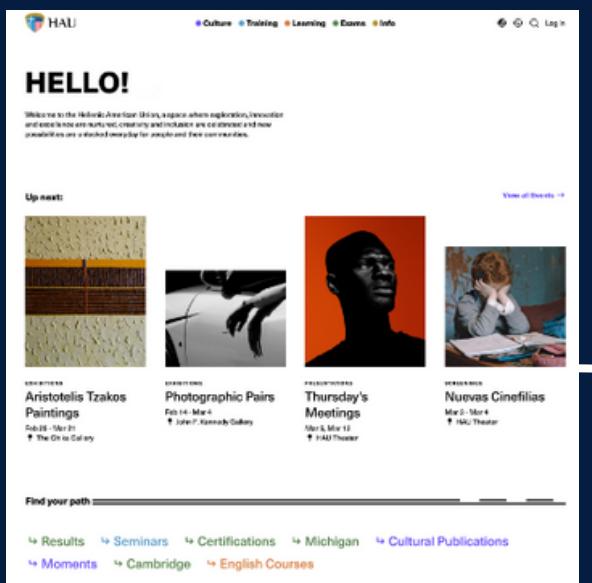
# GLOBAL SIMILARITY SCORE



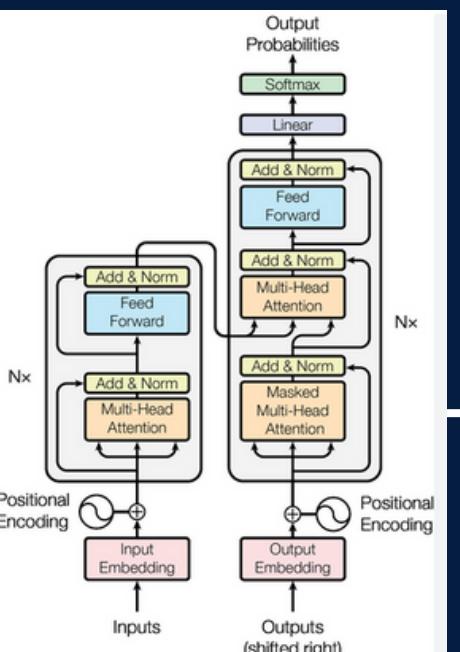
Web design



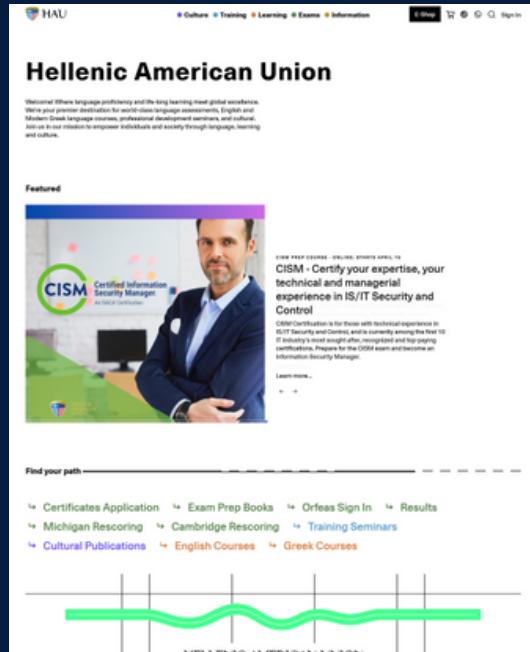
Cosine Similarity → Images match  
43%



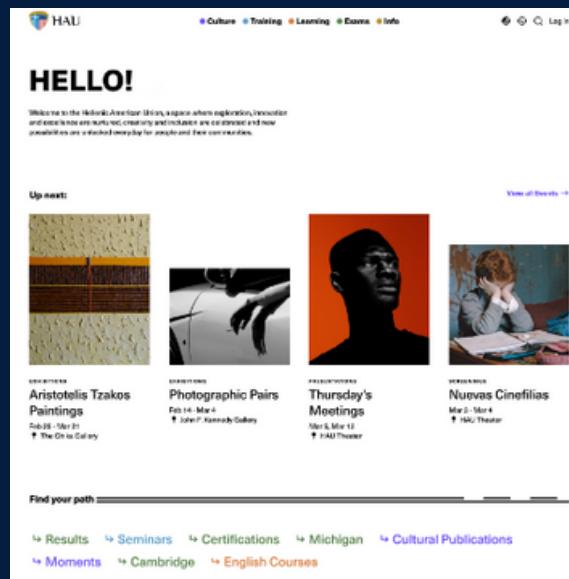
Figma design



# NLP ANALYSIS



Web design



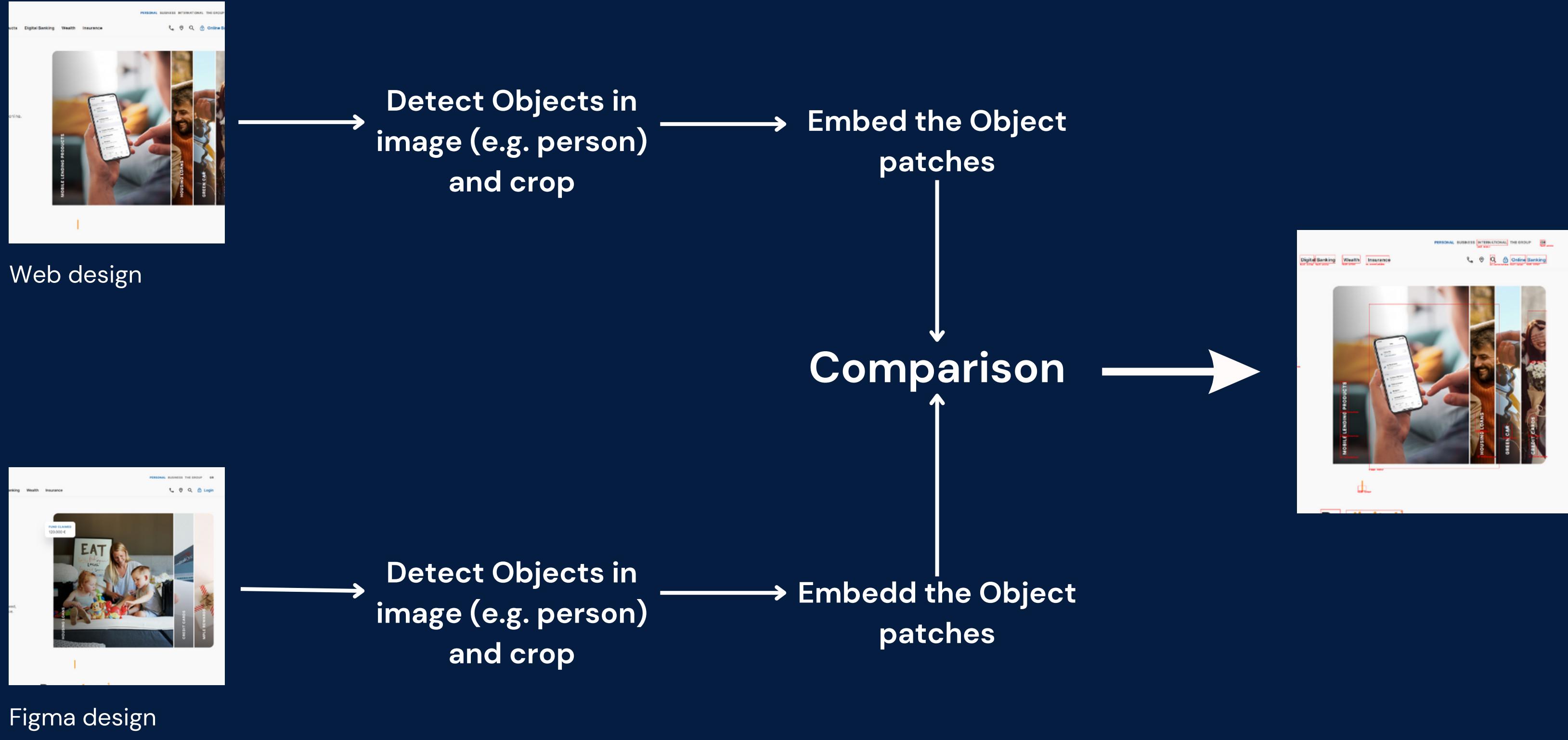
Figma design



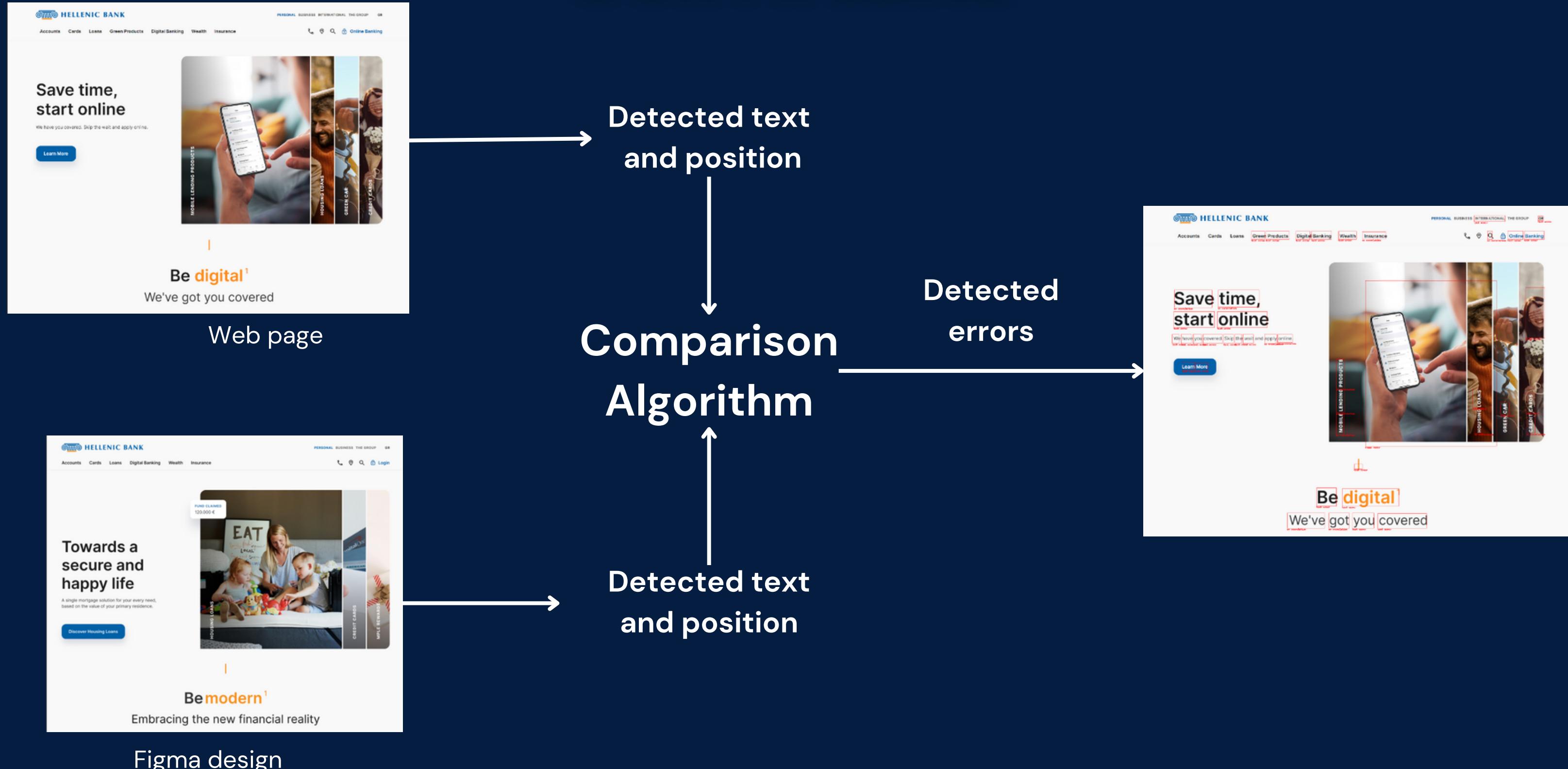
"Find the  
differences between  
the two Images."

"The two images represent the same website, but the first image appears to be a mockup or design prototype, while the second image shows the actual implementation or live version of the website. Differences between the mockup (first image) and the implemented website (second image). Layout: The implemented website has a different layout..."

# OBJECT DETECTION PIPELINE



# OCR PIPELINE



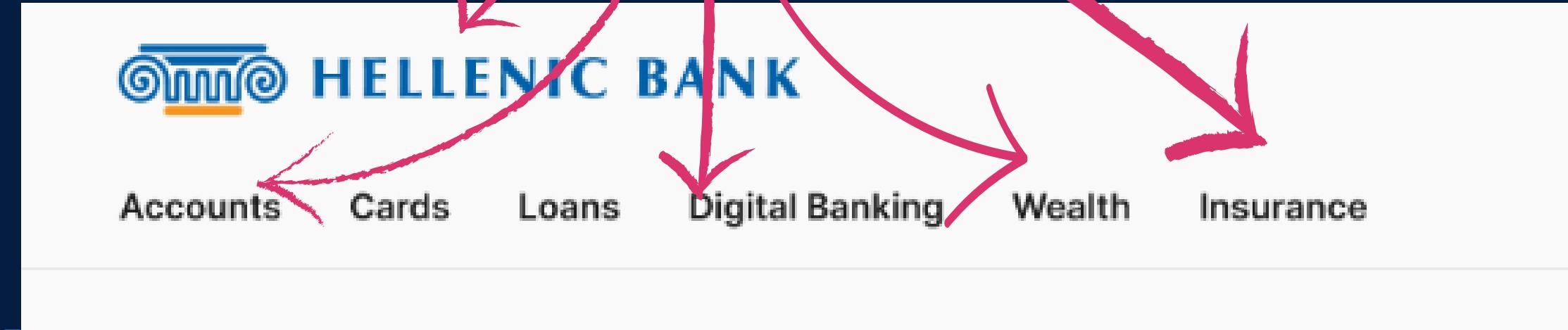
# COMPARISON ALGORITHM

Compare word found in designer with each neighbor in developer's web page

Screenshot  
from designer's  
abstract  
implementation



Screenshot  
from  
developer's  
implementation



# COMPARISON ALGORITHM

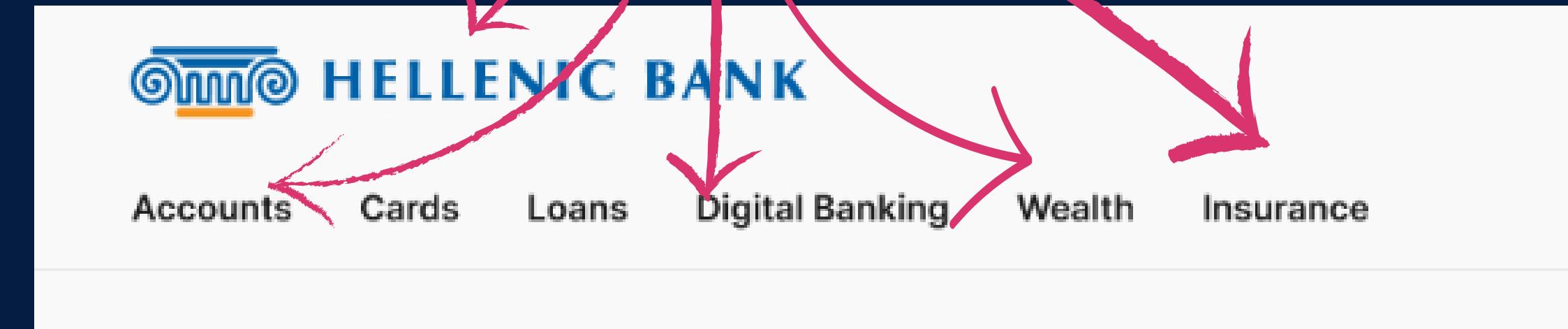
Compare word found in designer with each neighbor in developer's web page

Screenshot from designer's abstract implementation

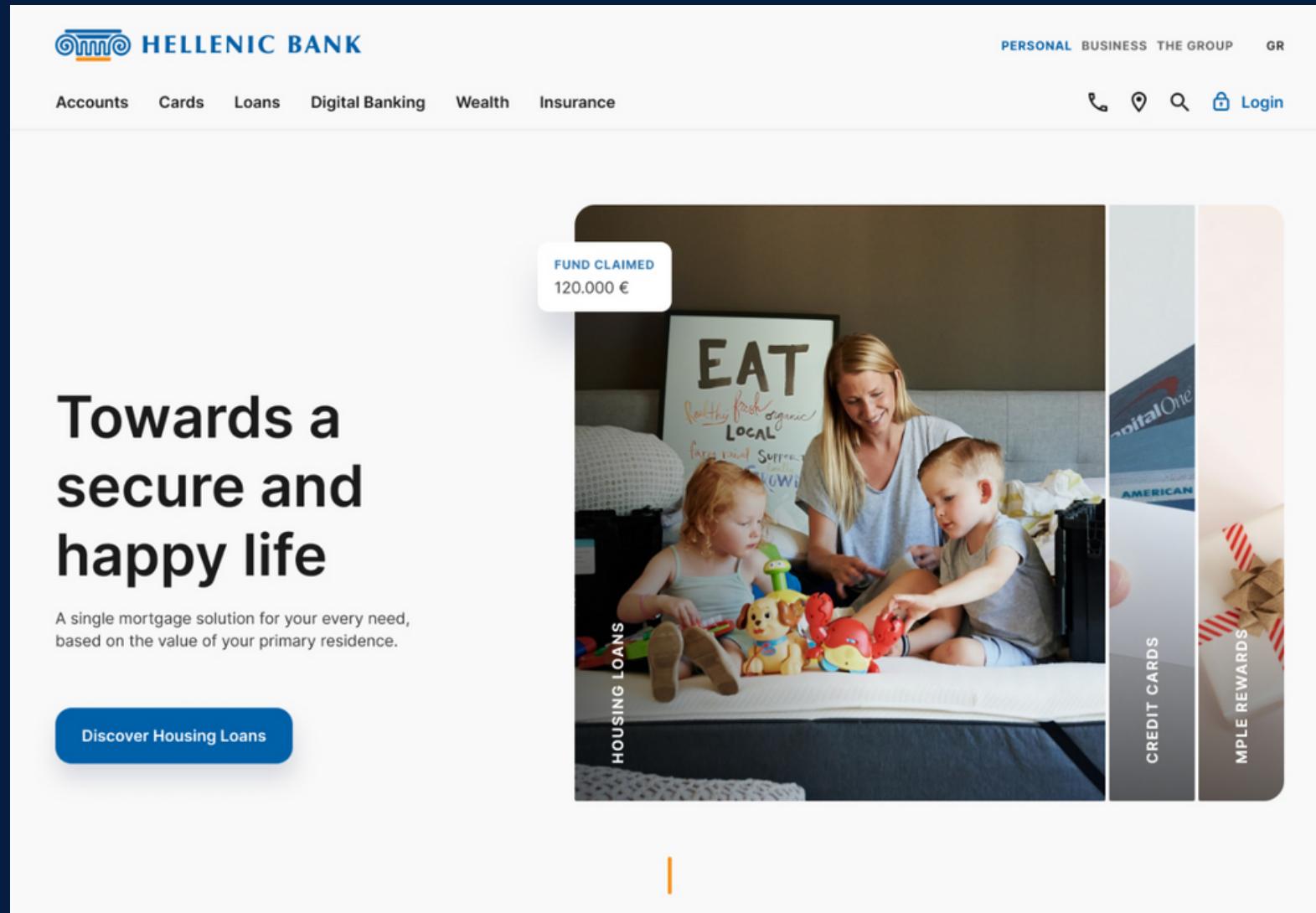


Nearest relative neighbor is "Digital Banking"

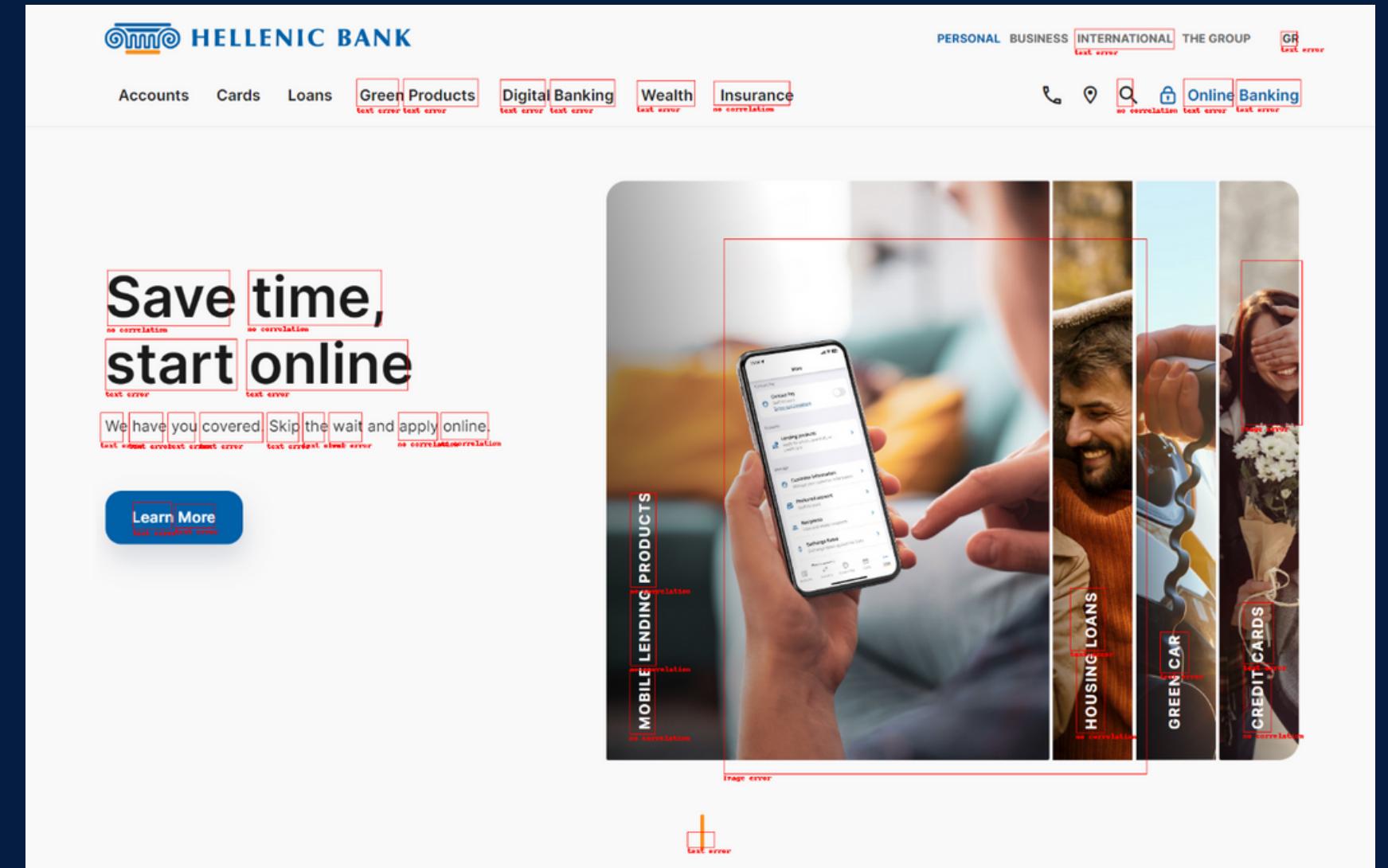
Screenshot from developer's implementation



# RESULTS



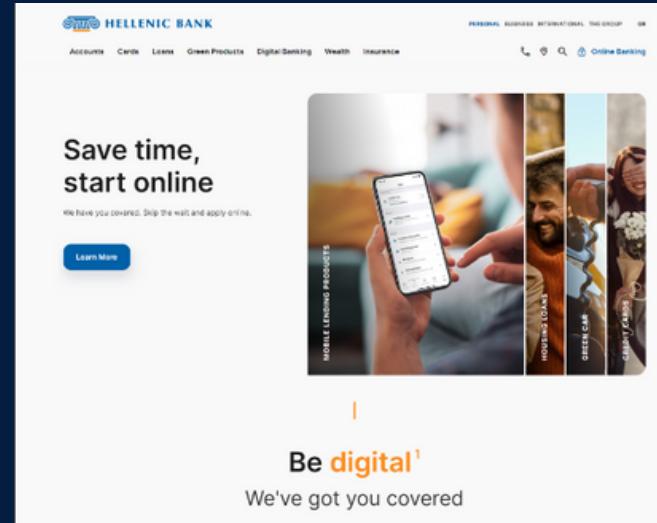
# figma design



web page  
with errors  
indicated

# FUTURE IMPLEMENTATION AND INTEGRATION

# FONT DETECTION

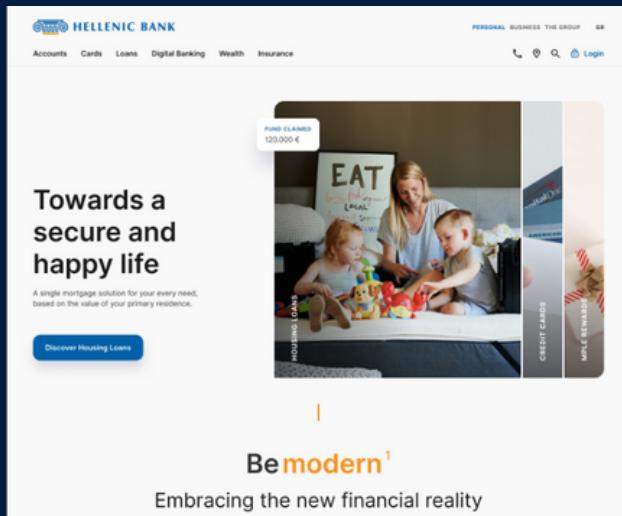


Web page

Crop  
sentence

**HELLENIC BANK**

*Calibri,  
Calibri light...*



Figma design

**HELLENIC BANK**

*Ariel,  
Times New Roman...*

Extract  
top 5 fonts  
using *WhatFontIs* API

Compare

# FOCUS ON RELEVANT FEATURES

The screenshot shows the Hellenic American Union website. At the top, there's a navigation bar with links for Culture, Training, Learning, Exams, Information, E-Shop, and Sign In. Below the header, the title "Hellenic American Union" is displayed. A "Featured" section highlights a "CISM PREP COURSE - ONLINE: STARTS APRIL 18". It features a photo of a man in a suit, a green circular logo for CISM, and text about the Certified Information Security Manager certification. A large red rectangular box highlights this section. At the bottom of the page, there's a "Find your path" section with several links: Certificates Application, Exam Prep Books, Orfeas Sign In, Results, Michigan Rescoring, Cambridge Rescoring, Training Seminars, Cultural Publications, English Courses, and Greek Courses. A decorative wavy green line is at the very bottom.

Web page

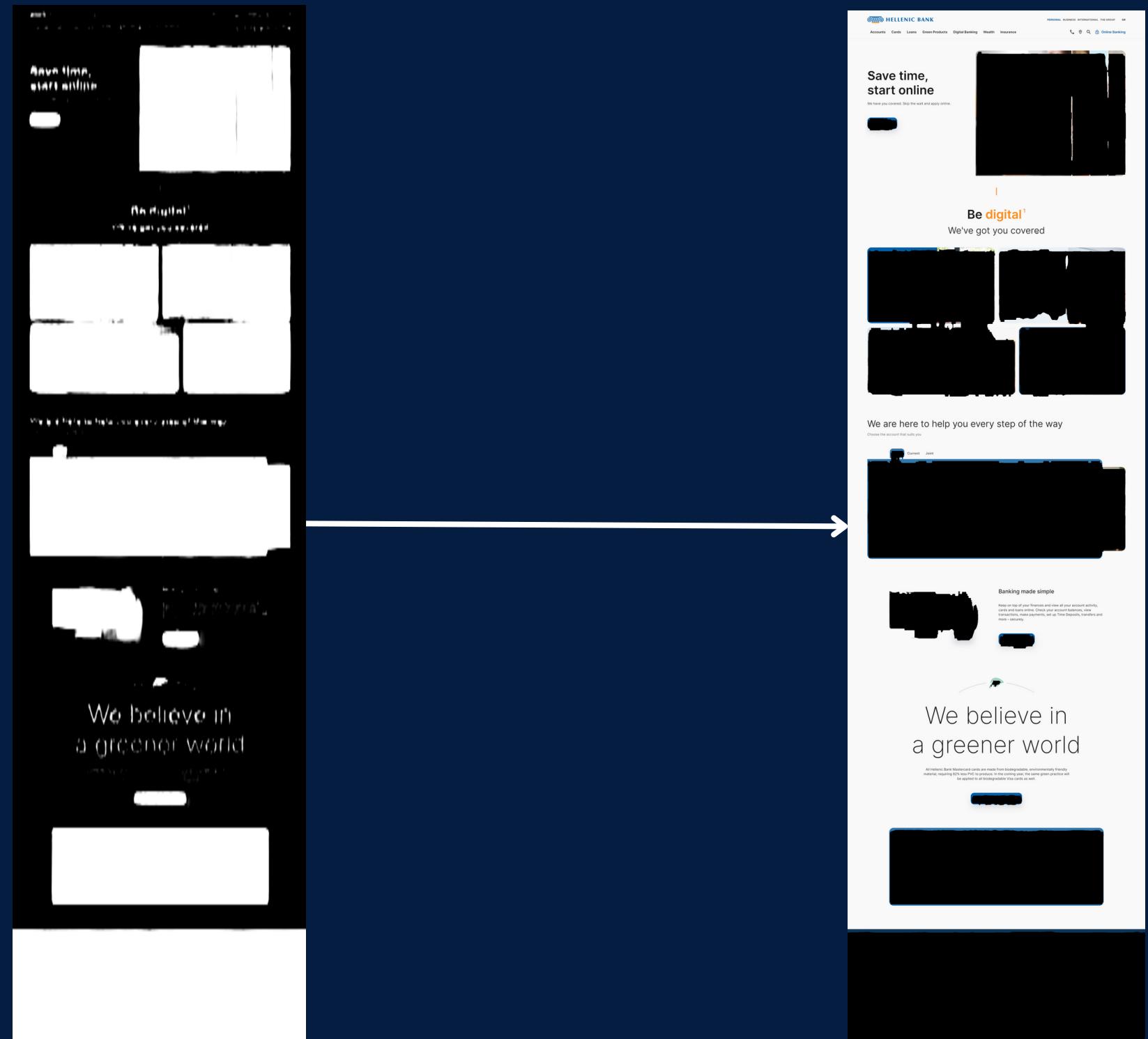


The screenshot shows the Hellenic American Union website design in Figma. The layout is cleaner than the web version. A prominent "HELLO!" header is at the top. Below it is a "Welcome" message. A pink rectangular box highlights the "Up next:" section, which lists four upcoming events: Aristotelis Tzakos Paintings, Photographic Pairs, Thursday's Meetings, and Nuevas Cinefilias. At the bottom, there's a "Find your path" section with links: Results, Seminars, Certifications, Michigan, Cultural Publications, Moments, Cambridge, and English Courses. A decorative wavy green line is at the very bottom.

Figma design

Correlate common sections  
and compare only those with  
iterative algorithms

# BACKGROUND COLOR AND STYLE DETECTION



## EXTRA MILE

- Make the hyperparameters of our algorithms trainable and define a loss function according to User Human Feedback.

# Thank you

Any Questions?

