What is your app idea for the individual assignment (this is different from group project)?

My app idea is to create an AI image checker that determines whether a photo was generated by artificial intelligence. With the rapid growth of AI, there has been a massive influx of AI-generated art and photos, which poses a unique challenge for photographers and digital artists who rely on their craft for a living. This app addresses that problem by using machine learning to assess the likelihood that AI generated an image.

Additionally, I thought it would be fun to include a location guessing feature, similar to GeoGuesser. However, instead of using visual landmarks, my app uses natural language processing (NLP) to detect any text or signage in the photo and guess the location based on language cues. If no readable language is detected, the app returns an output saying "No language detected."

How is AI/ML playing a role in your app?

I'm using Apple's Vision framework and Natural Language framework to power the core functionality of the app. The Vision model analyzes photos to determine the likelihood they were generated by AI, based on patterns and characteristics common in synthetic images. The NLP model identifies and interprets text within an image. If it finds recognizable language, it analyzes the content and makes a guess about the possible location or origin of the image. If no text is found, the app simply informs the user. I thought this integration of machine learning tools was exciting and relevant, and I can personally see myself (especially as an artist) using this app to distinguish between real and AI-generated content in everyday scenarios.

What were the considerations when developing the user interface?

When designing the user interface, my main focus was simplicity and clarity. I wanted the app's purpose to be obvious from the start and for users to be able to get results with minimal effort. The UI is clean, with only a few core buttons to upload an image, run the AI check, and optionally analyze text for location guessing. While visually minimal, this design fulfills my goal of making a focused and straightforward tool.

Are there similar apps out there? Discuss how yours stand in comparison?

A comparable tool would be something like GPTZero, which detects AI-generated writing, such as text written by ChatGPT. While GPTZero focuses on written content, my app focuses on visual media, using AI models to analyze both image generation and location-related language within photos. The combination of AI image detection and language-based location guessing makes my app unique. These may seem like separate features, but together they provide insight into where a photo may have originated and whether it was authentically taken or AI-generated. I believe, in our increasingly AI-powered world, this tool would help people better understand the authenticity and originality of the images they find.