AI developer's cheat sheet

This cheat sheet is intended to help product managers get started in performing POCs of implementing AI capabilities.

Have something to add? Email me at guybarner1@gmail.com.

Different types of AI (a very partial list)

- Generative AI (let's get that one out of the way)
 - Images
 - Text
 - Video
 - \circ Audio
- Vision (image/video)
 - Object detection
 - Face recognition
 - OCR (text extraction)
 - Image properties (colors, sharpness etc.)
- Audio
 - Transcription
 - Translation
 - Captions
- Text
 - \circ Summarization
 - Similarity calculations
- Natural language processing basics
 - [advanced] basic NLP concepts
- Recommendations
- Classification
- Clustering
- Sentiment analysis
- Entity extraction
- Anomaly detection

Note:

Yes, it seems like a lot. Good thing we don't actually need to do it, just kind of know what each one means!

FB groups:

Basic: עליית המכונות

More technical but great: Machine & Deep learning Israel - especially Yam Peleg's posts.

Big tech Infrastructure

All big tech infra have a wide set of tools that are easy to use, including image analysis, text analysis, video analysis and more. If you're looking for a specific capability, it's always a good idea to start by searching with your main infrastructure vendor.

Most services have working demos to help you get started.

Note that these are quick to get started, but can add up to high sums when scaling.

- <u>AWS</u>
- Google cloud
- <u>Azure</u>

Startups offering AI API services

Big tech usually takes care of mainstream AI. If you'd like to have something more custom, there are often startups that offer that.

For example, if you need object detection, big-tech will give you common detection for things like "car, dress, bottle". But if you need to differentiate between specific sub-genres of cars, you might prefer using a startup like <u>https://carnet.ai/.</u>

There are specialized APIs for most things, usually easiest to find by Googling your very specific requirement, although there are curated lists <u>like this one from RapidAPI</u>.

Open-source libraries

Open source libraries are awesome because they're free. Well, free-ish: They require you to host them on your own servers, and take care of scaling, maintenance, and all sorts of things you might not want to do during your POC.

However, the larger ones often have a good community behind them for support, and it's often easy to find working demos for leading libraries.

A few resources for finding open-source Ai libraries:

- Github: where most open-source code lives. Try making sure you use libraries with 100+ stars.
- HuggingFace: an aggregator and API supplier for open-source AI models, making them extra accessible.
- Google. Preferably, try to search for what you're looking for + open-source + demo.