

#1# Open-Source Programming Languages :

- Python
- Erlang
- Haskell
- Elixir
- Perl
- Scala
- Kotlin
- Rust
- SQL
- Ruby
- Swift
- Shell
- Php

#2# Compiled Programming Languages :

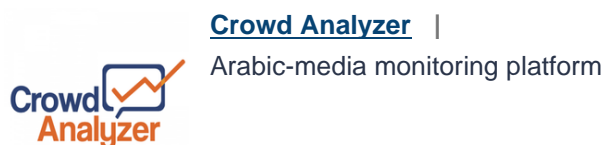
- C
- C++
- Erlang
- Haskell
- Rust
- Go

#3# Interpreted Programming Languages :

- PHP
- Ruby
- Python

#4# Companies That Work With AI :

1-



Crowd Analyzer offers an Arabic-language- focused social monitoring platform to analyze posts on social media sites and tell businesses who the people are and how they feel to better target their marketing campaigns. The company's solution includes Crowd Analyzer Dashboard, Command Center, and Offline Media Monitoring. The solution uses proprietary algorithms, machine learning, artificial intelligence, and natural language processing to select the most trending topics in people's conversations by analyzing

hashtags, phrases, and words. Some of the clients include Emaar, Danone, Land Rover, Abu Dhabi Media, etc.

Company Overview

Founded Year	2013
Location	Dubai (United Arab Emirates), Cairo (Egypt)
Funding	USD 5M [Funding Details]
Investors	Tech Invest Com, Arzan Venture Capital, Oasis 500 and 6 Other Investors [Investor Details]

2-



Cassbana |

AI-driven behavior-based credit scoring solution for individuals and businesses

AI-driven behavior-based credit scoring solution for individuals and businesses. Its technology platform enables businesses and consumers to analyze the financial status and credit score before accessing credits from the lending partners.

Company Overview

Founded Year	2020
Location	(Egypt)
Funding	USD 1M [Funding Details]
Investors	Access Bridge Ventures [Investor Details]

3-

WideBot |

Developed of Arabic-focused bot-building platform for enterprises



WideBot is an Egyptian startup that has developed an Arabic-focused platform for enterprises to build chatbots without technical know-how. It comes with an AI engine featuring Arabic slang and different drag and drops templates for users to build bots catering to multiple industries. The framework includes natural language understanding, machine learning, and conversation support, as well as integrations with WordPress, RSS feeds, Mongo DB, Twilio, WooCommerce, and more. As of July 2019, WideBot has more than 30,000 users using their bots, with clients from Argentina, Saudi Arabia, and Egypt, including Santander Rio Bank and Americana Group in KSA, and its core business model is subscription-based and provides white-labeled chatbots for enterprises.

Company Overview

Founded Year	2016
Location	Cairo (Egypt)

Funding	USD 100K [Funding Details]
Investors	Hub71, Mohammed Bin Rashid Innovation Fund [Investor Details]

4-



[Weelo](#) |

Platform offering suite solution grocery retailers

Platform offering suite solution grocery retailers. Its solution offerings include real-time order management, warehouse auditing, discount management, predictive analytics, field sales management, route & journey plan, analytics & reports, and more. It also offers digital AI-based supply chain solutions for businesses.

Company Overview

Founded Year	2017
Location	Cairo (Egypt)
Funding	USD 28K [Funding Details]
Investors	S[k]ale Up Venture, Integral Capital, Flat6Labs [Investor Details]

5-



[Avid Beam Technologies](#) |

Video Big data Analytics

Avid Beam offers video big data analytics and video optimization solutions. The product includes Avid Beam VIBE - which is a video Information Analytics Business Engine with the ability to extract Business/Security Intelligence Information from Video Big-Data sources. Also provides dynamic adaptive bitrate streaming, transcoding solution, and Enterprise Video Conferencing Solution. Video Information Analytics Business Engine with the ability to efficiently extract wealthy Business/Security Intelligence Information from Video Big-Data sources.

Company Overview

Founded Year	2014
Location	Cairo (Egypt)
Investors	Egypt Ventures [Investor Details]

6-



Botme |

Conversational chatbot to interact with customers

Botme provides a conversational chatbot to interact with customers. It allows users to build chatbots, manage conversations, improve customer experience and handle demand expectations. It also enables businesses to analyze users interactions, manage marketing, and track conversations. It can be integrated with Stripe, Messenger, Shopify, Dropbox, and PayPal. The company monetizes through a subscription-based pricing model.

Company Overview

Founded Year	2017
Location	Giza (Egypt)

7-



VRapeutic |

Provider of virtual reality-based therapeutic solution

VRapeutic provides virtual reality-based therapeutic solutions for public hospitals, rehabilitation centers, and private clinics. Uses IoT & artificial intelligence technology to enable therapists in delivering personalized content using supervised sessions, and offers solutions to track the impact of the therapy plan/program on patients.

Company Overview

Founded Year	2017
Location	Alexandria (Egypt)
Investors	VC4A, UNICEF Innovation Fund, Flat6Labs Cairo, and 2 Other Investors [Investor Details]

8-



Abu Erdan |

Cloud-based poultry management software

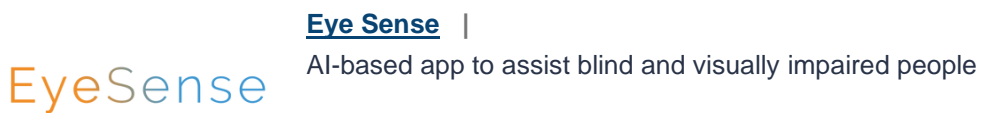
Abu Erdan is a cloud-based poultry management software. The software has modules for operation planning & management, tracking of daily farm parameters such as temperature, humidity, etc. The

platform can be used for collaboration in the production team. The platform provides notifications to the production team for their respective tasks and tracks the progress of the same. The performance analytics for the historical data can be done on the platform. Data can be recorded in offline mode and can be synced once users get internet access.

Company Overview

Founded Year	2016
Location	Cairo (Egypt)
Investors	GIST Network, Mass Challenge [Investor Details]

9-

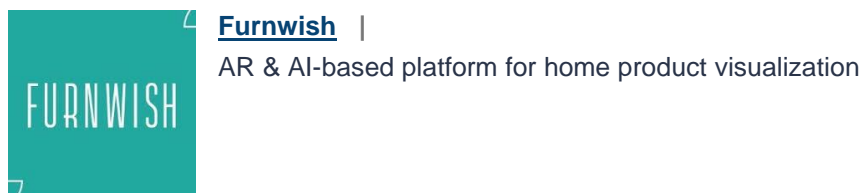


Eye Sense is an iPad app (other versions are due soon) that uses artificial intelligence to assist blind and visually impaired people to interact with their surroundings. It uses deep learning-based computer vision to recognize objects and also recognizes basic facial expressions, like winks or smiles which helps to enhance human interaction.

Company Overview

Founded Year	2016
Location	Giza (Egypt)
Investors	Rock start [Investor Details]

10-



Furnwish is an AR & AI-based platform for home product visualization. Its technology platform allows homeowners to discover, visualize and interact with furniture like sofas, chairs, beds, accessories, and more. It also enables brands & retailers to showcase their products & services to their customers.

Company Overview

Founded Year	2018
Location	Cairo (Egypt)
Investors	Hub71 [Investor Details]

#5# Three Example For clean code :

When coding, the coding style you follow can be really important. Especially when you are working with a team or you plan on sharing your code.

Most of these guidelines are standard and can be applied to most programming languages. However, here you have applications and snippets with C++ code, so you can get familiar with it more easily.

Remember that these are only recommendations for achieving clarity, which can be a personal preference. So take these pieces of advice into account but don't take them to the letter. Sometimes breaking some of these rules can lead to cleaner code.

***Use good variable names and make comments**

***Global variables :**

```
#include <iostream>
using namespace std;

// Global variables are
// declared outside functions
int cucumber; // global
variable "cucumber"
```

***Using goto, continue, etc.**

***Avoid changing the control variable inside of a for loop:**

Usually, there are workarounds to get around this that look clearer and less confusing, eg. while loops. Do this:

```
int i=1;
while (i <= 5)
{
    if (i == 2)
        i = 4;

    ++i;
```

Instead of:

```
for (int i = 1; i <= 5; i++)

    for (int i = 1; i <= 5;
i++)
{
    if (i == 2)

        {
            i = 4;
        }

        // Do work
}
```

- *Declare constants and types at the top**
- *Use only one return function at the end**
- *Use curly braces even when writing one-liners**

Doing this system will help you do it faster. And in case you want to change the code in the future you will be able to do it without worries.

Instead of :

```
for (int i = 1; i <= 5; i++)

    //CODE
```

Do this:

```
for (int i = 1; i <= 5; i++)
{
    //CODE
}
```

***Other recommendations**

Use `for` when you know the number of iterations, but use `while` and `do while` when you don't. Use `const`, pass by value/reference when suitable. This will help with saving memory.

Write `const` in caps, datatypes starting with T, and variables in lower case.

```
const int MAX= 100;           //Constant
typedef int TVector[MAX];     //Data type

TVector vector;               //Vector
```

“3 bites” :

#6# How to Storage Number “5” in the memory in less than byte in