**TOOLS**

* Andriod studio:**It is an** official [integrated development environment](https://en.wikipedia.org/wiki/Integrated_development_environment) (IDE) for [Google](https://en.wikipedia.org/wiki/Google)'s [Android](https://en.wikipedia.org/wiki/Android_(operating_system)) [operating system](https://en.wikipedia.org/wiki/Operating_system), built on [JetBrains](https://en.wikipedia.org/wiki/JetBrains)' [IntelliJ IDEA](https://en.wikipedia.org/wiki/IntelliJ_IDEA) software and designed specifically for [Android development](https://en.wikipedia.org/wiki/Android_software_development).
* Python:**It** is an [interpreted](https://en.wikipedia.org/wiki/Interpreted_language) [high-level programming language](https://en.wikipedia.org/wiki/High-level_programming_language) for [general-purpose programming](https://en.wikipedia.org/wiki/General-purpose_programming_language).
* **.NET Framework** (pronounced *dot net*) is a [software framework](https://en.wikipedia.org/wiki/Software_framework) developed by [Microsoft](https://en.wikipedia.org/wiki/Microsoft) that runs primarily on [Microsoft Windows](https://en.wikipedia.org/wiki/Microsoft_Windows). It includes a large [class library](https://en.wikipedia.org/wiki/Class_library) named [Framework Class Library](https://en.wikipedia.org/wiki/Framework_Class_Library) (FCL) and provides [language interoperability](https://en.wikipedia.org/wiki/Language_interoperability) (each language can use code written in other languages) across several [programming languages](https://en.wikipedia.org/wiki/Programming_language).
* **PyCharm** is an [integrated development environment](https://en.wikipedia.org/wiki/Integrated_development_environment) (IDE) used in [computer programming](https://en.wikipedia.org/wiki/Computer_programming), specifically for the [Python](https://en.wikipedia.org/wiki/Python_(programming_language))language. It is developed by the Czech company [JetBrains](https://en.wikipedia.org/wiki/JetBrains).[[2]](https://en.wikipedia.org/wiki/PyCharm) It provides code analysis, a graphical debugger, an integrated unit tester, integration with [version control systems](https://en.wikipedia.org/wiki/Revision_control) (VCSes), and supports web development with [Django](https://en.wikipedia.org/wiki/Django_(web_framework)) .
* **ALGORITHMS USED IN STEGANOGRAPHY**

There are four algorithms currently implemented, each use least significant bit steganography and some filter the image first.

* BLINDHIDE: This is the simplest way to hide information in an image. It blindly hides because it just starts at the top left corner of the image and works it's way across the image (then down - in scan lines) pixel by pixel.
* HIDE SEEK: This algorithm randomly distributes the message across the image. It is named after "Hide and Seek" - a Windows 95 steganography tool that uses a similar technique. It uses a password to generate a random seed, then uses this seed to pick the first position to hide in.
* FILTER FIRST: This algorithm filters the image using one of the inbuilt filters and then hides in the highest filter values first. It is essentially a fancier version of BlindHide as it doesn't require a password to retrieve the message.
* BATTLE STEG: This algorithm performs "Battleship Steganography". It first filters the image then uses the highest filter values as "ships". The algorithm then randomly "shoots" at the image (like in HideSeek) and when it finds a "ship" it clusters it's shots around that hit in the hope of "sinking" the "ship".