Notes on Python codes and Git commands

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There are a lot of common commands in Python and Git that I need to use very often but can easily forget them. This is my notebook to help me remember them.

1 Python

2 Git

- add all new files: `git add .`
- add all updated old files: `git add -u`
- pull updates from remote branch main: `git pull origin main`

2.1 vim

- quit vim: `:q`

3 Latex

- breakable tcolorbox

```
\usepackage[most]{tcolorbox}

\begin{tcolorbox}[breakable, enhanced]
\textbf{Solution:}
\end{tcolorbox}
```

- insert images

```
\usepackage{graphicx}

\includegraphics[width=0.5\textwidth]{bird1}
```

- insert python code

```
\usepackage{pythonhighlight}

\begin{python}
\end{python}
```

- insert table

```
\begin{center}
\begin{tabular}{| c | c | c |}
\hline
& Messages & Feature vectors \\
\hline
& million dollar offer & [0, 1, 0, 0, 0, 0, 0, 1, 1, 0, 0, 0, 0, 0, 0] \\
Spam & secret offer today & [1, 1, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0] \\
& secret is secret & [2, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0] \\
\hline
& low price for valued customer & [0, 0, 1, 1, 1, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0] \\
Non-spam & play secret sports today & [1, 0, 0, 0, 0, 0, 1, 0, 0, 1, 0, 0, 1, 0, 0] \\
& sports is healthy & [0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 0, 0, 1, 0] \\
& low price pizza & [0, 0, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1] \\
 \hline
\end{tabular}
\end{center}
```

Example:

	Messages	Feature vectors
Spam	million dollar offer	[0, 1, 0, 0, 0, 0, 0, 1, 1, 0, 0, 0, 0, 0, 0]
	secret offer today	[1, 1, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0]
	secret is secret	[2, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0]
Non-spam	low price for valued customer	[0, 0, 1, 1, 1, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0]
	play secret sports today	[1, 0, 0, 0, 0, 0, 1, 0, 0, 1, 0, 0, 1, 0, 0]
	sports is healthy	[0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 0, 0, 1, 0]
	low price pizza	[0, 0, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1]

- Algorithm inside box

```
\begin{tcolorbox}[breakable,enhanced]
\textbf{Solution:}
  \begin{algorithm}[H]
  \begin{algorithmic}
     \FOR{ $\lambda = \lambda_1$ to $\lambda_n$ }
    \STATE statement 0
     \FOR{$k = 1$ to $K$}
                 \STATE statement 1
                 \STATE statement 2
                 \ENDFOR
    \STATE statement3
    \ENDFOR
    \STATE statement 4
    \end{algorithmic}
    \caption{Algorithm name}
  \end{algorithm}
\end{tcolorbox}
```

Solution:

Algorithm 1 Algorithm name

for $\lambda = \lambda_1$ to λ_n **do**
  statement 0
  for $k = 1$ to K **do**
    statement 1
    statement 2
  end for
  statement3
end for
statement 4

Check here for other algorithm commands