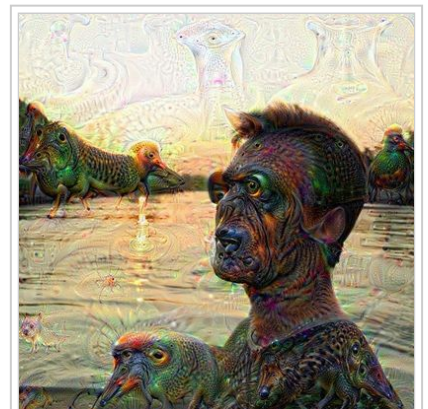


User: Thomas Hollis

(Thomas Hollis' personal user page)

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A picture of Thomas Hollis passed through multiple iterations of Google Deep Dream ^[1] algorithms

About

Formerly a Bachelor of Electrical and Electronic Engineering at the University of Manchester (2015-2018), I am now a candidate in the Master of Science in Applied Computing at University of Toronto (2018-2020). Biology novice.

Contact me

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Useful code

Below is a collection of useful code snippets for subsequent reuse and referral. I hope that future-me finds them useful, as well as hopefully other classmates.

Git cheat sheet

This is a cheat sheet for Git syntax that I wrote to help myself and classmates remember any git command for the future.

Command example	Operation explanation
<pre>git clone https://github.com/YOUR-USERNAME/YOUR-REPOSITORY</pre>	Clones the linked repository to local storage
<pre>git add GenomeAlgo.py git commit -m "v10.5" git push origin master</pre>	Pushes the updated file to the master branch with the version as a comment

R cheat sheet

This is a cheat sheet for R syntax that I wrote for myself and my classmates to avoid silly mistakes and learn the R language more thoroughly.

Command example	Operation explanation
<code>library(RWeka)</code>	Installs the RWeka package and all its dependencies
<code>save(x, y, z, file = "mydata.RData")</code>	Saves objects x, y, z regardless of whether they are vectors, factors, lists or data frames into a file of given name.
<code>load("mydata.RData")</code>	Recreates the x, y, z data structures
<code>save.image()</code>	Saves current session to a file called .RData (R will look for this file automatically next time you start R)
CTRL+L	Clears terminal
<code>mydata <- read.csv("data.csv", stringsAsFactors = FALSE, header = FALSE)</code>	By default R assumes that CSV files include headers as the first row of the file thus header = FALSE must be used for headless CSV files.
<code>write.csv(pt_data, file = "pt_data.csv")</code>	Used to create a CSV file from an R object
<code>object_name</code>	Prints the information stored in an R object
<code>remove(object_name)</code>	Removes an R object
<code>CVector_name <- c("John")</code>	Writes a character vector
<code>NVector_name <- c(9.81)</code>	Writes a numeric vector
<code>IVector_name <- c(12, 13)</code>	Writes an integer vector (two entries)
<code>LVector_name <- c(TRUE, FALSE)</code>	Writes a logical vector (two entries)
NULL	Special vector type used in machine learning used to indicate absence of a value
NA	Special vector type used in machine learning used to indicate missing value (used for uninitialized values in vectors)
<code>& !</code>	AND, OR, NOT logical operators
<code>%>%</code>	Pipe operator
<code>Vector_name[1:4]</code>	Prints elements of vector from

	1st to 4th in the form: [1] 12, 13, NA, NA
<pre>blood <- factor(c("O", "AB", "A"), levels = c("A", "B", "AB", "O"))</pre>	Creating a factor with 3 blood types and adding a level that did not appear in the data before writing to the var 'blood' in the form: [1] O AB A Levels: A B AB O
<pre>list()</pre>	List function which creates a list, a fast way of assigning/displaying data of an object
<pre>m <- matrix(c('a', 'b', 'c', 'd'), nrow = 2)</pre>	Matrix creation results in the following: "a" "c" "b" "d"
<pre>summary(patients\$year)</pre>	Useful for investigating numeric variables (displays several common summary statistics).
<pre>mean()</pre>	Function used to find the mean of data
<pre>median()</pre>	Function used to find the median of data
<pre>range()</pre>	Returns minimum and maximum values of data
<pre>IQR()</pre>	Used to find the inter-quartile range of data
<pre>var()</pre>	Outputs the variance of dataset
<pre>sd()</pre>	Outputs the standard deviation of dataset
<pre>plot(x = patients\$age, y = patients\$diseases, main = "Scatterplot of Age vs. Concurrent Diseases", xlab = "Patient age (years)", ylab = "Number of concurrent diseases")</pre>	Typical scatterplot command

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External Links

Github account: <https://github.com/PsiPhiTheta> (lots of additional material here that this course inspired me to do)

Google scholar account: <https://scholar.google.co.uk/citations?user=Gmr1zVUAAAAJ&hl=en> (my current publications)

UofT landing page: <http://www.cs.toronto.edu/~thollis/>

Personal landing page: <http://www.thomashollis.com>

References

1. ↑ Google. (2015, August 12). Google/deepdream. Retrieved September 15, 2018, from <https://github.com/google/deepdream>



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