

DeKUT IoT and Data science projects for DSA.

Presented by:

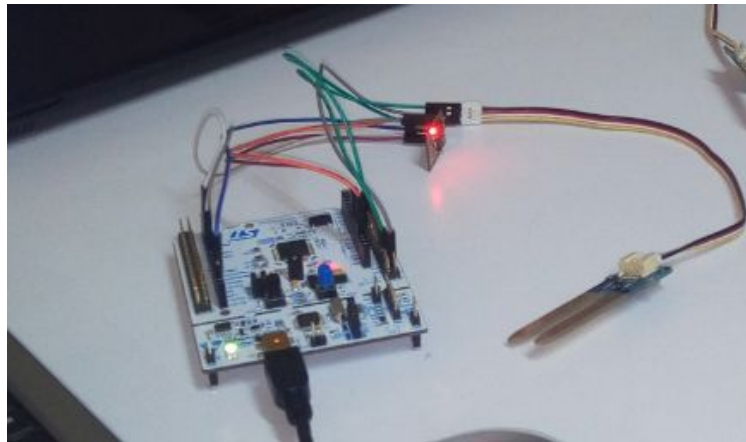
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Our Journey to IoT and DSA.



Hardware & software trained on DSA.



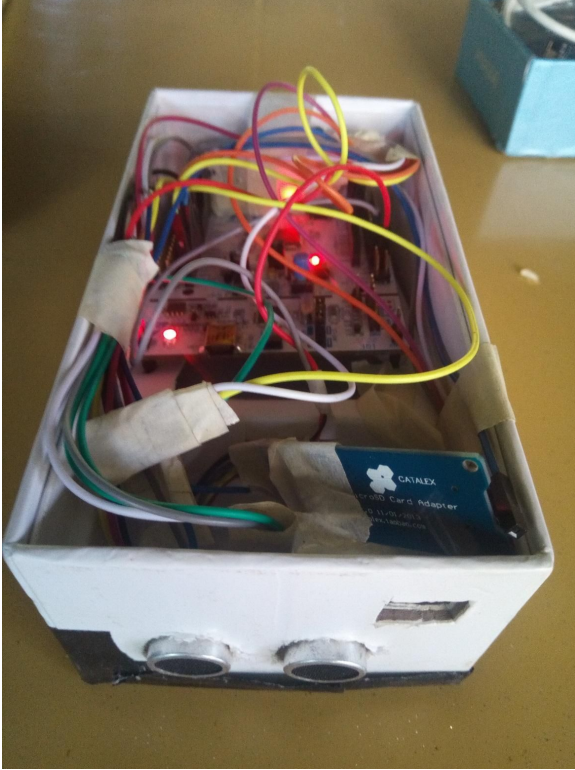
IoT and Data Science projects.

- ▶ Water level monitoring system.
- ▶ Image processing with keras.
- ▶ Recap on dsa IoT.
- ▶ Internship at homeboyz radio.(building a data science infrastructure).

Water level monitoring system.

- This is a prototype project for monitoring water fluctuations in the dekut wildlife conservancy watering points(ponds).
- The 2 water ponds in the conservancy floods and dries up seasonally and therefore the need to monitor the water fluctuation.
- The watering points are the main water sources to the wildlife. When dry its a threat to the animal's life. When flooded the fish are swept away.
- When they dry up the costs of supplying water form vendors is high.
- This calls for Intervention to monitor the resource and minimize the cost of operation.
- The system saw many applications like to predict flooding, and water obstruction upstream and downstream.
- The water fluctuation was streamed on thingspeak and visualized

Rugged device, deployment, retrieval.



Deploying and retrieving the device.



Project follow up.



Homeboyz radio internship data science infrastructure.



Deploying SMACK stack on GCP.

You have \$300.00 in credit and 363 days left in your free trial.

DISMISS

UPGRADE

Google Cloud Platform

My First Project

← Create an instance

You have a VM that wasn't submitted, click restore to keep working on it

Restore

Name

hbrfrontend

Zone

us-east1-b

Machine type

micro (1 share...)

0.6 GB memory

Customize

Upgrade your account to create instances with up to 96 cores

Container

☐ Deploy a container image to this VM instance. [Learn more](#)

Boot disk

New 10 GB standard persistent disk

Image

Ubuntu 14.04 LTS

Change

Identity and API access

Service account

Compute Engine default service account

Access scopes

☒ Allow default access

☐ Allow full access to all Cloud APIs

☐ Set access for each API

Firewall

Add tags and firewall rules to allow specific network traffic from the Internet

☒ Allow HTTP traffic

☐ Allow HTTPS traffic

Management, disks, networking, SSH keys

I>

Your Free Trial credits, if available, will be used for this instance

\$4.28 per month estimated

Effective hourly rate \$0.006 (730 hours per month)

Your first 720 hours of f1-micro instance usage are free this month. [Learn more](#)

Details

Compute Engine Quickstart

Build a to-do app with MongoDB

CREATE A FRONTEND VM

While the backend VM is spinning up, create the frontend VM that runs the Node.js todo application

✓ Create the frontend VM

✓ Configure the instance

Enter a [name](#) (for example, "frontend") for this instance and press the Tab key to move to the next step

- Select [f1-micro](#). This will incur fewer charges. [Learn more about pricing](#)
- Select [Ubuntu 14.04 LTS](#) as your boot disk image for this tutorial.
- Open HTTP firewall port
Check [Allow HTTP traffic](#). This is an easy way to open firewall 80 (HTTP) so the frontend and backend VMs can communicate
- Create the VM
Click [Create](#) to finish creating this instance

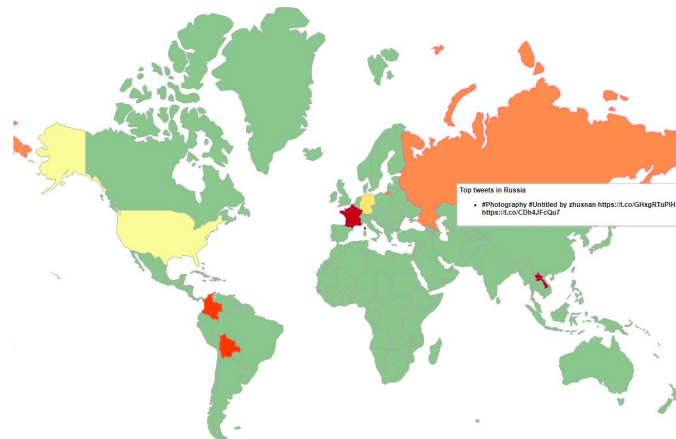
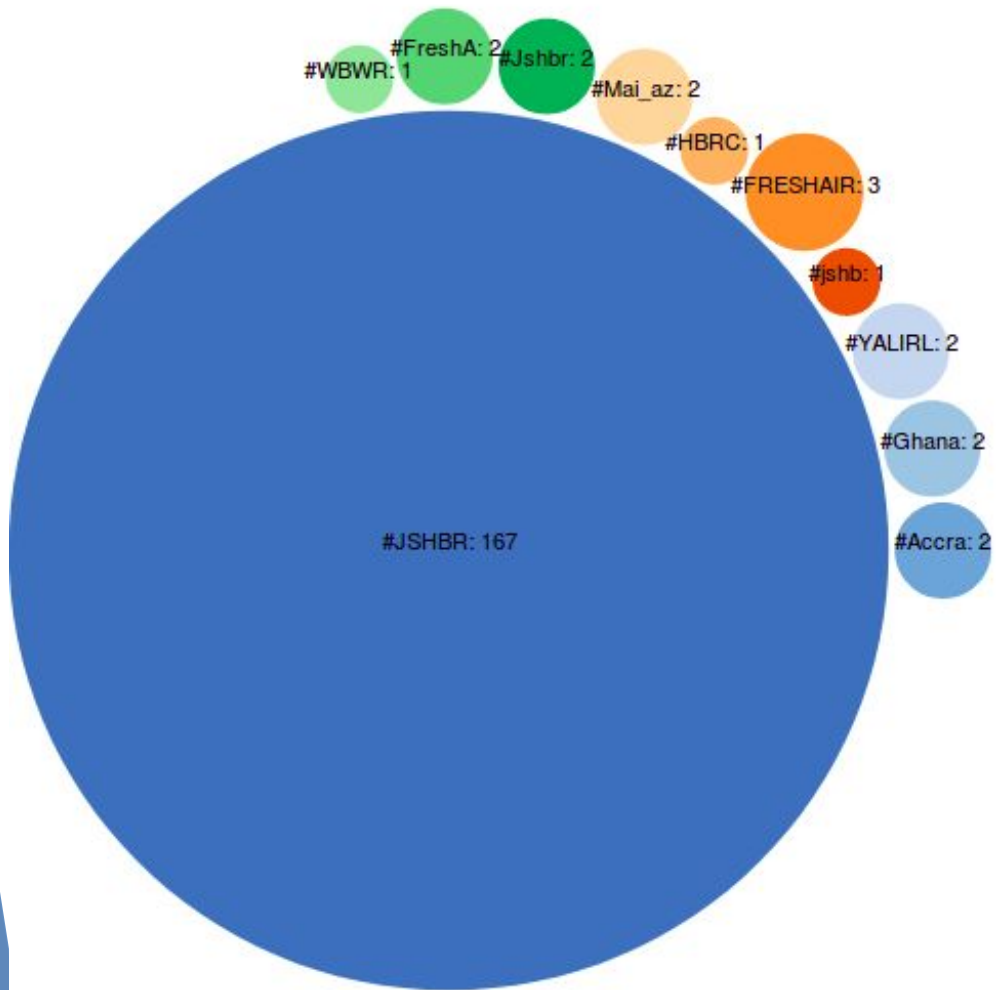
BackForward

CANCEL TUTORIAL

REPORT PROBLEM

Internship data projects.

Country wise top tweets



Acknowledgement

I wish to acknowledge the effort and support of members of DIDS_G group Dekut lead by the patron Dr. Ciira Wa Maina.

Mr. Stephen Mathenge.

Mr. Amos Koech.

Mr. Walter otieno.

Links: <https://medium.com/@jaredmaks>.

[:https://github.com/billiyz](https://github.com/billiyz).

[:https://github.com/DekutIOTDataScience](https://github.com/DekutIOTDataScience).

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