NHS.pycom:
The Python community for healthcare

Speakers:
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Alex Cheung - NHS England

Python is a widely adopted, open source programming language

Compared to other languages, it is relatively easy to learn due to its human readable syntax. As such, Python will play a central role in the 21st century digital transformation of health care

What is the NHS Python Community?

An open community of practice, driven by enthusiasts and advocates, that champions the use of the python programming language and open code in the NHS and healthcare sector

NHS.pycom is *not*:

- Offering Consultancy services
- Providing **official** training or certification
- IT support

Aim 1.

Reduce barriers to entry by promoting the use and best practice of python tools

Publishing to public GitHub repositories, and using online coding platforms such as Google Colab.

Example:

GitHub + Colab

- Access to all the tools required for python / Machine Learning / Artificial Intelligence
- Browser based, cross-platform (windows, mac, linux)
- No downloads required
- No install required
- No admin rights required
- Clone GitHub repo in one click

Help Cannot save changes

Share

+ Code + Text Copy to Drive

RAM Disk

Editing

```
# clone coding club repo to google colab
!git clone -l -s git://github.com/nhs-pycom/coding-club-trashPanda.git cloned-repo
%cd cloned-repo
!ls
```

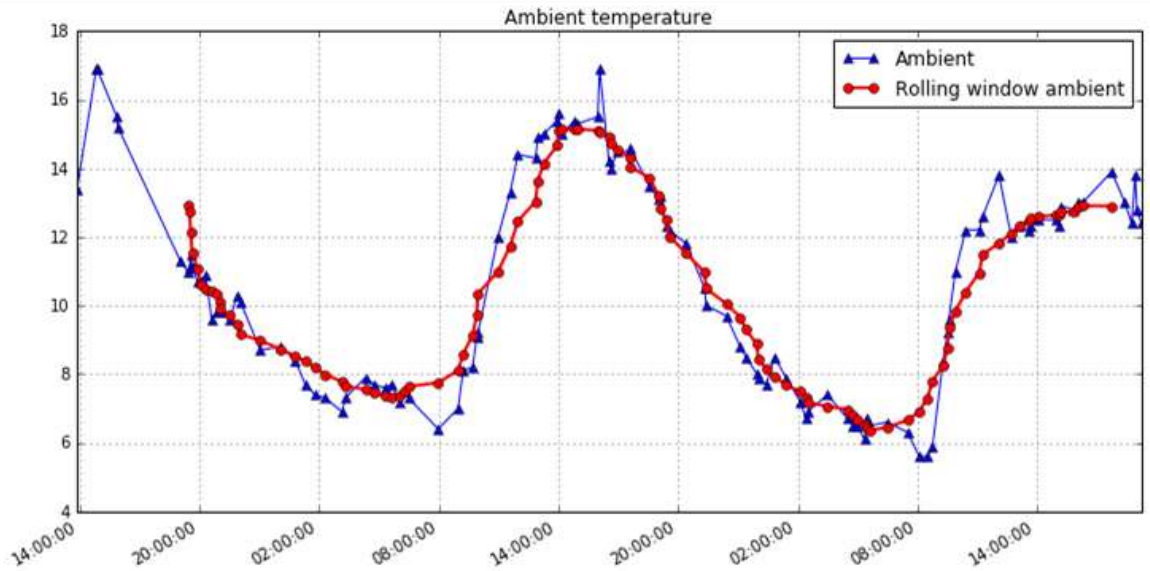
```
import pandas as pd
pd.set_option("display.max.columns", None) # show all columns in dataframe

# read an excel file from repo /data/ folder
path = '/content/cloned-repo/data/tabular structure/Q1 Returns/Jan 2021.xlsx'
df = pd.read_excel(path)
df.head()
```

```
# specify which sheet to load and index column number (remember index starts at 0 in python)
df = pd.read_excel(path, sheet_name=0, index_col=0)
df.head()
```

```
df.info()
```

```
# basic transformations
sort_population = df.sort_values(['Population:'], ascending=False)
sort_population['Population:']
```



Aim 2.

Champion the use of open source code and open data

So tools can be further developed, re-used ,and improved upon by everyone in the community

Example:

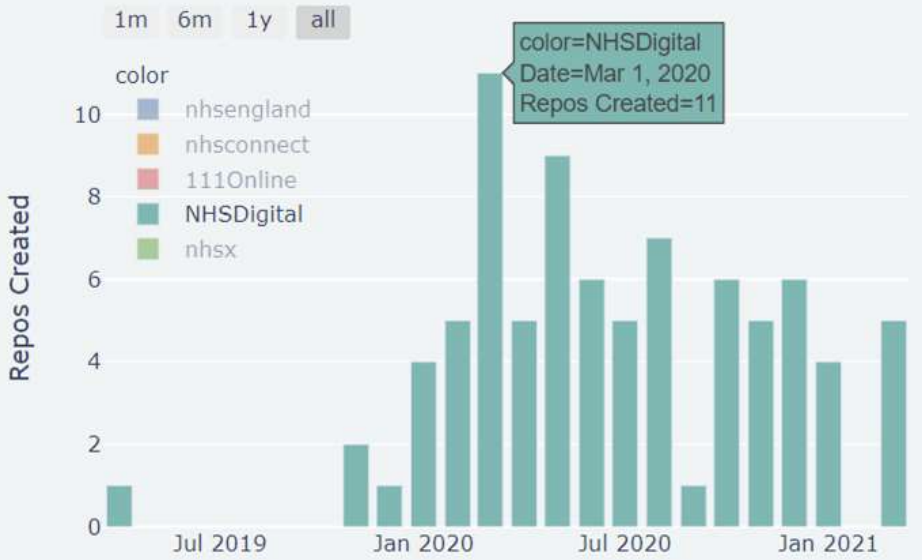
Open NHS Code Repositories

- [Alpha] Collection of statistics on open source NHS github repositories
- Using end-to-end open source analytics: python, plotly, github.io, and github actions.
- Get your organisation added to the collection, email: craig.shenton@nhsx.nhs.uk

NHS X

Statistics on open source healthcare repositories

View the Project on GitHub
nhsx/open-health-statistics



Org	Open Repos	Total Size	Stargazers	Forks	Open Issues	Top License	Top Language
111Online	13	522097	10	0	26	Apache License 2.0	C#
NHSDigital	83	497099	91	74	348	MIT License	Python
nhsconnect	178	3193248	243	198	406	Apache License 2.0	CSS
nhsengland	23	36298	14	38	80	MIT License	Python
nhsx	32	429206	199	85	54	MIT License	Python

Aim 3.

Break down silos of expertise

Improve technical communication and collaboration across the NHS and Healthcare sector

Aim 4.

Make coding accessible to ALL members of the healthcare community

Regardless of background or current level of ability

NHSX Early Careers feedback

Sharing best practice

Get feedback from experienced data scientists on data projects

Keep up with the latest developments in technology and apply them to the healthcare sector

Open solution are made available to avoid duplication

Work on cool projects

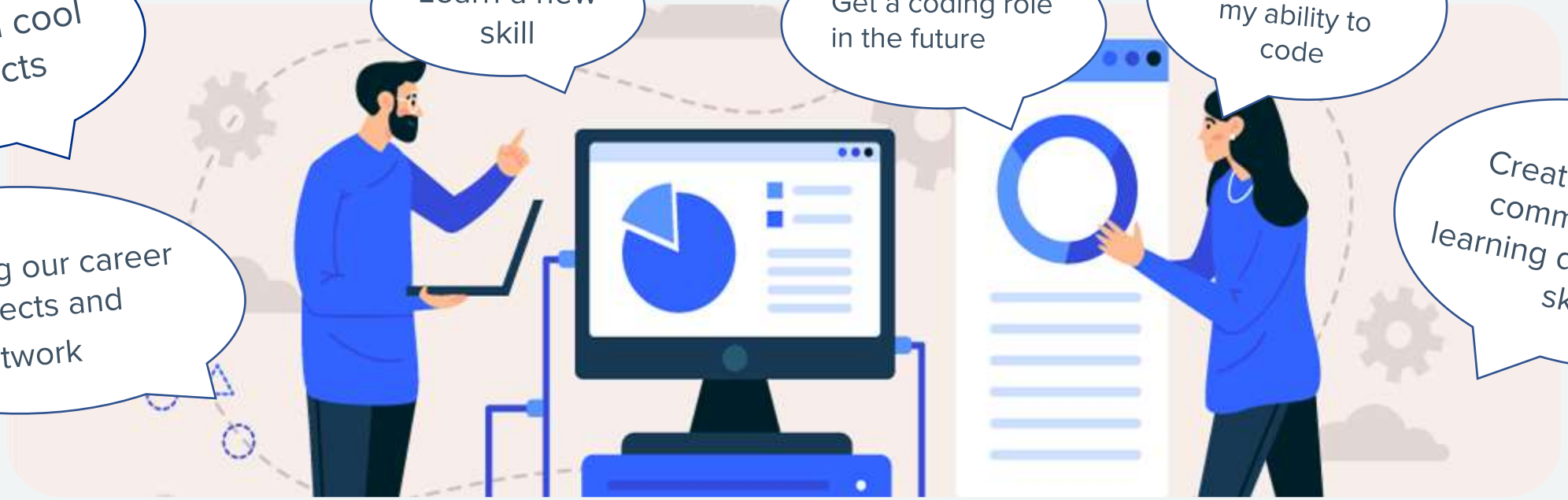
Learn a new skill

Get a coding role in the future

Become more confident with my ability to code

Expanding our career prospects and network

Create an open community for learning data science skills



Fill in the survey to get involved

1. Suggestions/Feedback
2. Communications channel
3. Ideas for content

Link:

FutureNHS

NHS

AnalystX platform

Launching April 19th

Details...

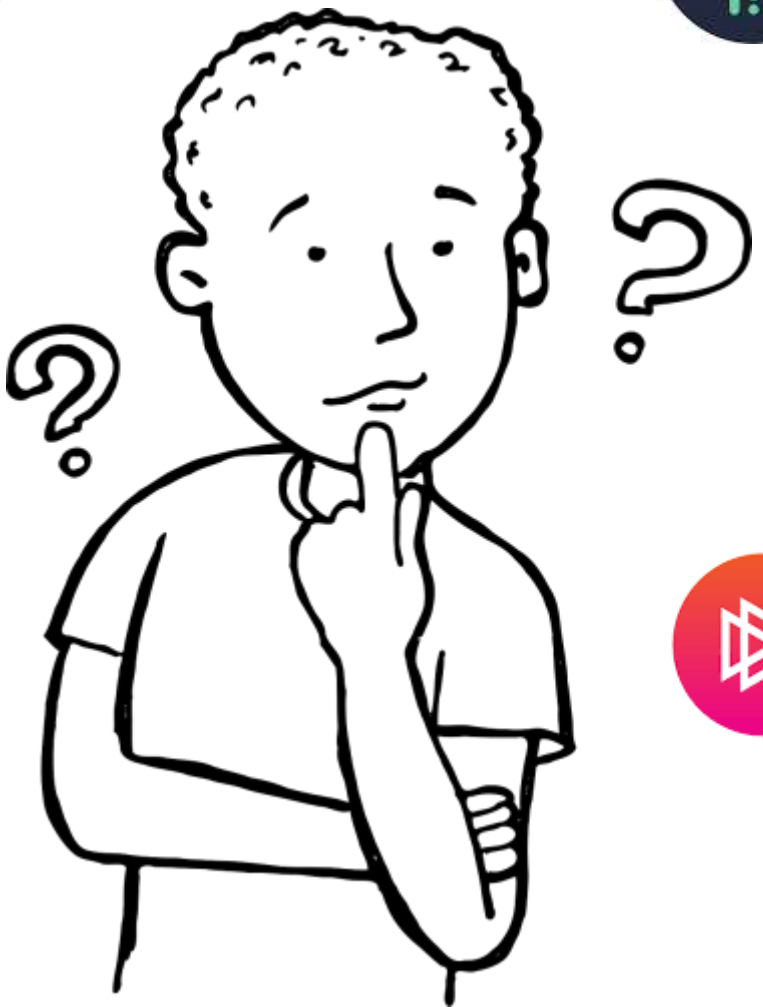
FutureNHS

NHS

codecademy

DATAQUEST

Udemy



coursera

CODE

PLURALSIGHT

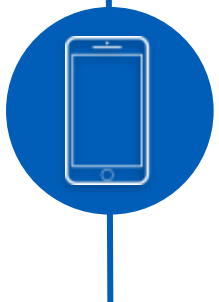
FutureNHS

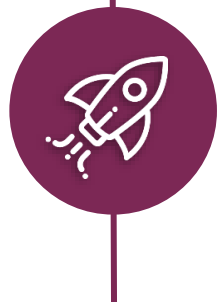
Scope and landscape
Design and development
NHS Healthcare
Platform Progression Accreditation
Network
Learning Knowledge Information Social
Partnering
Healthcare analysts Training partner
Management
Board Admin and management team
Activities
Training Learning Code sharing Collaboration

FutureNHS

NHS

Discover	Formulate	Illustrate	Publish	Administrate
Exploring the use of python in the NHS Make connections with super users	A development plan Provide a channel for discussion	The ability code sharing between organisations A catalogue of products	Learning material Case studies Shareable codes Presentation Future proof concept	FutureNHS User support Platform management





Register your interest with the survey

1. Best way for us to get in touch
1. Feedback/Suggestions
1. Ideas for content

Connect with us

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FutureNHS: AnalystX

NHSX: Analytics Unit

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