



ROYAL
HOLLOWAY
UNIVERSITY
OF LONDON



```
samp      <- sam  
x         <- dat  
truth     <- dat  
for(j in 1:nla  
for(i in 1:100  
netsays(c(1,2,
```

```
## [1,] 0.9643
```

```
netsays(c(0,4,
```

```
## [1,] 0.0264
```

datatrieste
ly / datatrieste -
feedback



Middle
East
↳ SOUTH
EAST ASIA

Challenges to contributing data

Peoples unwillingness to put data online.

2) Challenges to reusing data.

1) Very limited data available in open ~~lots~~ access domain

2) Most of the data is ~~not~~ of no use

The credits will go to the users of data.

- 1- To Maintain Secrecy of data
- 2- Not making public before research get published.
- 3- Limited resources to make data public

LANGUAGE
DIFFERENCES IS
ONE OF THE
BIGGEST CHALLENGES
IN MIDDLE EAST

CONTROLLED
INTERNET
MEDIA &
ONLY SUPERVISED
ACCESS THROUGH
GOVT. LIBRARIES
& DATA SOURCES

DATA SHARING
IS RESTRICTED





```
netsays <- function(x) {
  for(j in 1:nlayers) x <- 1/(1+exp(-x))
  return(x)
}

backprop <- function(layer,n1,n2,factor) { # recursive function
  if(layer>1) for(n in 1:nodes[layer-1])
    backprop(layer-1,n2,n.factor*net[[layer]][n1,n2])
  net[[layer]][n1,n2] <- net[[layer]][n1,n2] - ALPHA *
    (x - net[[layer]][n1,n2])
}

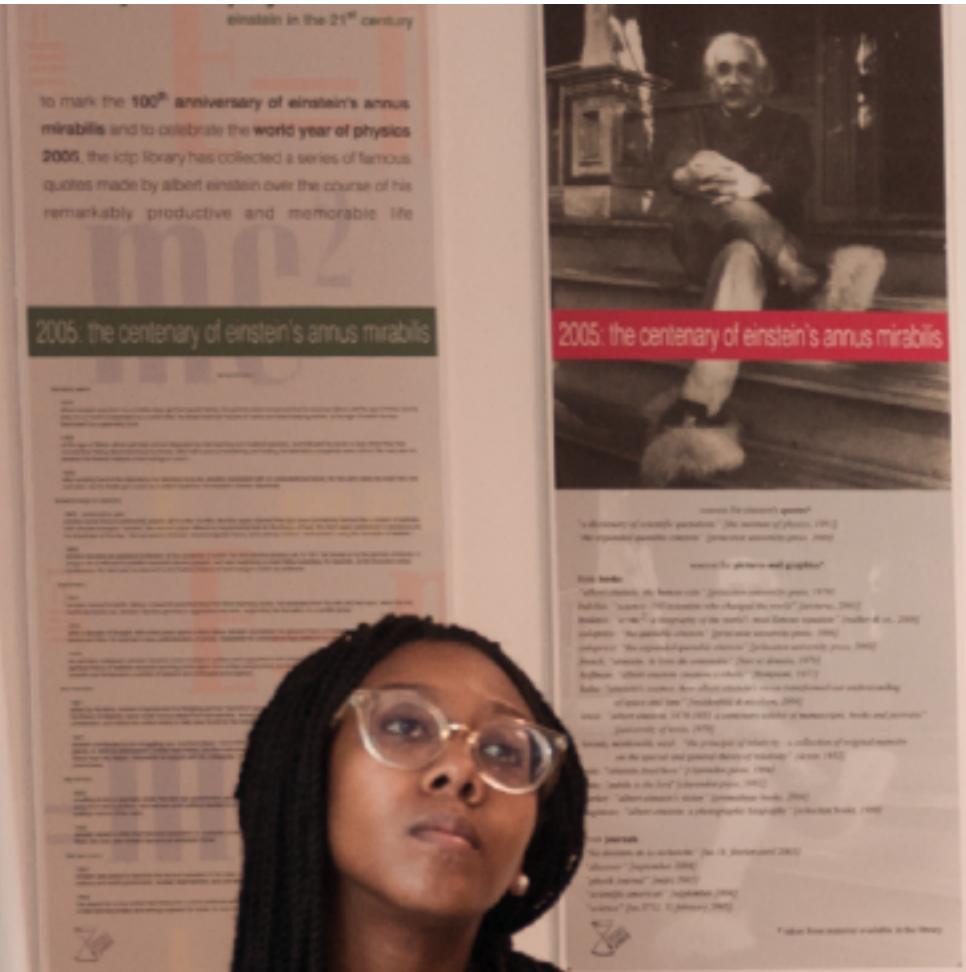
<- function(x,truth) { # like netsays but changes
  r <- list() # to contain the outputs of all nodes in
  r[1] <- x # the input layer
  for(layer in 2:nlayers) r[[layer+1]] <- as.vector(1/(1+exp(-(r[[layer]] * net[[layer]] + backprop(nlayers,1,n,(r[[layer]] - truth)))))

Roger Barlow - A
```



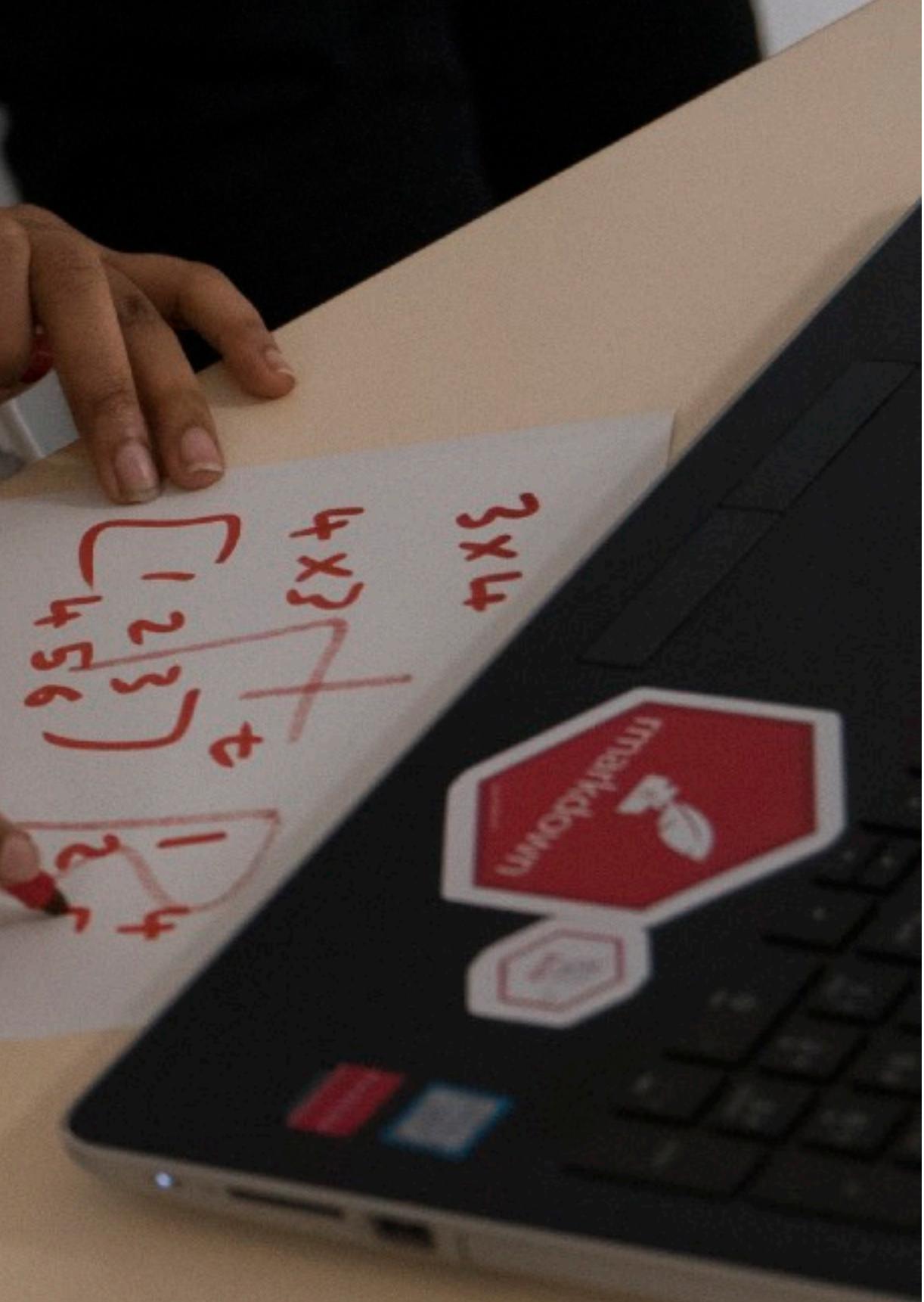


- Who Am I
- Chief Operations Officer of the Open Projects - Software Assurance Methods
 - Manager High Throughput Computer Predictions for DOD and Defense
 - Gov Science Fellow - formerly of the White House Office of Science and Technology Policy
 - External Advisor to Defense Contractors
 - Member of the Organizational Fellowships Committee
 - Co-Chair CIOB&TA Strategic Outreach Group
 - Co-organizer of Allianz Center of Excellence in Quantitative Risk Management









$f(x) = 3x^2 - 2x + 1$

$f(x) = 4x^2 - 5x + 2$

$f(x) = 2x^2 - 3x + 4$

CODATA-RDA schools

Two week event

Focus on ECR's from LMIC's

Data Science skills

NOT another bootcamp!



6 Schools since 2016



Run on three continents

~250 students from 40 countries

Curriculum