Date	Challenge Day	Activities
28-06-19	1	Started the #60DaysofUdacity challenge. Signed the challenge agreement. Have been working on Federated learning using PySyft.
		Continued Lesson 8: Securing Federated Learning.
29-06-19	2	Joined a Kaggle competition for Blindness Detection from in which I will use the Federated Learning to work on the dataset for training my model.
		1. Went through the lesson and project for Additive Secret Sharing which involves a special type of Cryptography for aggregating data in an encrypted state so no individual will actually see what those data gradients are.
30-06-19	3	2. Worked on pre-processing the dataset I'm using for Blindness Detection in the APTOS Diabetic Retinopathy Kaggle Competition. I actually can't share my code on any public platform because of the sensitivity of this project. I'll try to give some hints about the project.
		Image Source: https://lnkd.in/gWj9wFf
		1. Completed the additive secret sharing, additive secret sharing with fixed precision.
01-07-19	4	2. Wrapped up with building methods for Encrypting and Decrypting data.
		1. I completed all the course lessons and mini-projects. One more step to go is the Keystone Mix and Match Project. 2. I'm now very conscious of data privacy and would be implementing the lessons learned in this program in my deep learning and AI projects going forward.
		a. Projects and lessons completed:
		b. Local and Global Differential Privacy
		c. Differential Privacy for Deep Learning
		d. Federated Learning
		e. Securing Federated Learning
02-07-19	5	f. Encrypted Deep Learning
		Completed the pre-processing of the Diabetic Retinopathy dataset for my Blindness Detection Kaggle competition.
		Using Pytorch is quite new to me as I've been a Keras person for the most part.
03-07-19	6	Well, good learning curve for me.
		1. Read articles on bridging the gap in the adoption of Security and Privacy for machine learning models in the industries. https://www.linkedin.com/feed/update/urn:li:activity:6534451382697766912/
04-07-19	7	2. Made more progress in my Kaggle project. (Training the model using the PyTorch framework)
05-07-19	8	* Still training my NN model using Pytorch with integration of . It's been quite slow. I save each epoch in a file
		1. Still training my model. My Kaggle kernel kept dying through training process. Switched to Google Colab but data loading is still a bit of a challenge.
06-07-19	9	2. Read helpful articles on Medium that helped me hook up my Colab and GPU runtime. 3. Keep breaking the bars and moving ahead with the challenge is the motto.
		Continued working on my APTOS Diabetic Retinopathy Kaggle project.
07-07-19	10	Connected with some of my colleagues on this #udacityfacebookscholar program.
		□ Solved the problem where my Google Colab couldn't load the files in Google drive. Thanks to my awesome colleagues @Anna Scott @David Ashraf helped me out in #tech_help.
		□ Still making progress on the APTOS Diabetic Retinopathy project. For some disclosure reasons, I can't share my code.
		□ My Github is open to view other Pytorch and Neural Network files I've worked on:
		https://lnkd.in/gUE4FGV
		See here for broader Machine Learning code base I've been working on:
		https://github.com/
08-07-19	11	1. All work without play makes me a dull girl. Saw the movie "The Social Network"
		2. Read articles on Federated Learning and the most interesting break down for this concept is this:
09-07-19	12	https://lnkd.in/gtaSgUz
		1. Revisited the PATE analysis video in the SPAIC course to get a better grasp of this concept.
		2. Watched the Freecodecamp Applied Deep Learning video using Pytorch. (Started building a chatbox using this tutorial.)
10-07-19	13	https://lnkd.in/gtcWjzK
11-07-19	14	
12-07-19	15	I had an eye surgery on July 11th and couldn't use any screen or be where there is bright light. I could not do any work on these 3 days between 11th and 13th.
13-07-19	16	
		✏ Had a virtual meetup with some of the scholars at the Secure and Private AI Challenge to build a "real world application" which we'll reveal when it is completed.
14-07-19	17	* Still working on the APTOS Blindness Detection Kaggle Competition. Almost there.
		1. Completed my model training on the APTOS Diabetic Retinopathy Kaggle project but Kaggle kernel continuous shutdown is a nightmare. I couldn't get to the predictions stage. I will keep trying until I submit my predictions
		2. Practiced writing some SQL queries based on DATACamp course on Joining Data in SQL.
		https://campus.datacamp.com/courses/joining-data-in-postgresql/introduction-to-joins?ex=1
15-07-2019	18	3. Watched the replay of Robert Wagner Webinar: https://youtu.be/9D_jxOMZmRlhttps://youtu.be/9D_jxOMZmRl
		1. Still working my first Deep Learning-powered chatbot with Pytorch where I will be implementing RNNs and LSTMs.
16-07-2019	19	2. I'm new to the RNN subject and reading a lot to understand the concept.
		3. I encourage @Berenice @Evi @Adeline Chang @Noom Chanthadit to keep powering on in this challenge.
		1. I continued working on the Chatbot project. Still preprocessing the data I'm using for the project.
		2. I reduced the number of epoch for my APTOS data training to 15 because I noticed my Kaggle kernel does not run past the 16th epoch.
17-07-2019	20	3. Read the the simple guide to RNN from this Github repo: https://colah.github.io/posts/2015-08-Understanding-LSTMs/ (edited)
		1. Worked on the chatbot project using RNN.
		2. Attended a Q and A session at a local meetup with women in in big data in Calgary
18-07-2019	21	3. Interacted with my colleagues at #sg_nigerian to determine the best time for our Meetups.
		Thanks @Berenice for the encouragement.
19-09-2019	22	1. Continued a brush up on my SQL knowledge on DataCamp
		2. Still preprocessing the text data I'm using on the chatbot.
		1. Had an hour virtual meetup with my study group at #sg_pytorch-robotics led by @Helena Barmer
20-0701 9	23	2. Researched on sample federated learning projects using raspberry pi or Arduino
		3. I encourage @Jess @Dammy @Temitope Oladokun @Helena Barmer @Mukul Kathpalia @Ayesha @Anna Scott
		1. Attended a 2-hours virtual Meetup with the Nigerian study group in the SPAIC course #sg_nigerian with amazing and brilliant men and women.
		2. Completed the model training and validation of my APTOS Diabetic Retinopathy Kaggle competition project. I am going to just hit that submit button. Submiiiitttt Done. Fingers crossed. The lessons learned through this process is much more relevant to me.
21-07-19	24	3. Encouraging @Dammy @Temitope Oladokun @chijoke.roy @Oluwarotimi Adesina @AGU CHIDIEBERE FRANCIS @Precious @Berenice @Helena Barmer @Shubhangi Jena @Shudipto Trafder @Oudarjya Sen Sarma @Seeratpal K. Jaura @Jess
		1. Answered questions in #tech_help to help other students solve their code problems.
22-07-19	25	2. Read this article: https://venturebeat.com/2019/06/03/how-federated-learning-could-shape-the-future-of-ai-in-a-privacy-obsessed-world/ 3. Encouraging @AGU CHIDIEBERE FRANCIS @Adeline Chang @Agil Haykal @A S M Sadiqul Islam @A. S. M. Safiul Sadi @Aadam @Aakanksha Dhurandhar @Aaditya Kumar @Aakash Singh @Aakash Singh @Aamir Sayani @Aayush Shah @AASHISH MALIK @Aarón Hernández Arcique
		1. Studied the framework of Rasa-Nlu and how to use it to build my chatbot.
		2. One of the tutorials I have been learning from can be found here:
23-07-19	26	https://www.analyticsvidhya.com/blog/2019/04/learn-build-chatbot-rasa-nlp-ipl/
		3. Encouraging @Berenice @Bearbear @Helena Barmer @Jessica B @Rumanu @B V Pradeep @Babatunde Adeyemi @badRabbit @Bala Anjani @Balaji Balasubramanian @Balkesh Choudhary @Balogs @barabash @Barak @Baran Berkay Barakçin @Barbara Davila @Barbora @Baski @Barta Éva Anna @Beáta Hargitay @Batman @BB119 @Bassam Beldjoudi1.
		1. Listened to the podcast series by Stanford University Women in Data Science.
		2. Worked on implementing federated learning on the APTOS Diabetic Retinopathy dataset. Got stuck at an error "AttributeError: 'Compose' object has no attribute 'federate'."
24-07-19	27	How can I solve this issue?
		3. Listened to the DataHack Radio podcast on analyticsvidhya.com
		4. Answered questions in#tech_help
		1. Encouraged all the awesome people at #sg_nigerian #sg_pytorch-robotics #wmn_who_code
		1. Continued working on the Chatbot project up to the encoding and decoding of the data.
25-07-19	28	2. Still figuring out how to integrate federated learning to APTOS Diabetic Retinopathy Kaggle project. 3. Encouraging @chijoke.roy @AGU CHIDIEBERE FRANCIS @Adeline Chang @Balkesh Choudhary @Bearbear @Noom Chanthadit @Çağatay Onur Şengör @Caitlyn Singam @Camilo Silva @Camilo Gomez @Carlos E Ramirez @celestine.ekoh-ordan @Casimiro.Rocha @ccquiel @Casey Buscall @Carolina
		1. I discovered and error made in my APTOS Diabetic Retinopathy Kaggle project. Corrected the error of not having a local reset pre-trained model in my dataset. I initially downloaded directly from the internet but a fellow Kaggler pointed that out me. Had to rerun the whole notebook and resubmitted.
26-07-19	29	2. I tried implementing Federated learning or encrypted deep learning on this project and that failed because Kaggle kernel doesn't allow installation of custom packages like Syft. I will have to use a different dataset for my federated learning project. At least, now I know what works and what doesn't work. 3. Encouraging @Dammy @Daniel Ashraf @Damian @Damir Valput @Sankalp Dayal @Dan @Daniel @Daniel Hdz @Daniel Carlson @Dani Montes
		1. Attended an hour Meetup with the robotics group #sg_pytorch-robotics in the Secure and Private AI Challenge organized by @Helena Barmer
		2. Learned about installing Pytorch and Syft on raspberry pi. This process can be so time consuming.
		3. Huge shout out to @Dammy and @Muhammad Naufil for sharing their interesting AI projects in raspberry pi, self-driving car and tinkering a similar project like Google home.
		4. Now half way through the challenge and I am amazed at how much I've learned in 30 days.
		You all are awesome. @James Korge @Pooja Vinod @Temitope Oladokun @pranita shrestha @Varnia @Rupesh Purum @Seeratpal K. Jaura @Joyce Obi @Helena Barmer @Mahak Bansal @Oudarjya Sen Sarma @Munira Omar @Calincan Mircea Ioan @Munira Omar @Anna Scott @Pablo Carmona - Zuluaga @Ivy @Erika Yoon @Juan Carlos Kuri Pinto @Soumya Nasipuri @Vivank Sharma @Amina Assouane @Apoorv Agnihotri @PRAXS @Berenice @Eileen @Yaak @Eliyana Linden @Aleksandra Deis @Archit @Frida @Stark @nabhanpv @Seeratpal K. Jaura @Fustincho @Swapnil Gaikwad @LauraT
27-07-19	30	@Edgar Villegas @Sussy Indrawati @Sessy Indrawati @Noon Chanthadit
		1. Attended #sg_nigerian study group two-hour virtual study session led by @Ateniola Oluwatobi Victor around Differential Privacy. We discussed different concepts such as local and global differential privacy, epsilon-delta privacy loss budget, PATE analysis, and challenges we are facing in our individual projects. We also exchanged ideas on how to mount folders on Gdrive in Google Colab. It was nice sharing knowledge with you all. Thanks to @Ateniola Oluwatobi Victor for the brilliant presentation. 2. I encouraged my study group members on #sg_nigerian
28-07-19	31	1. Worked on my conversational AI chatbot a little bit using the nltk and sklearn. I'm trying different methods, let's se which one works best for me.
		2. Read the article on TOWARDS FEDERATED LEARNING AT SCALE: SYSTEM DESIGN
29-07-19	32	3. Watched tutorials on Advanced SQL for data science: time series on Lynda.com
		1. Completed the Advanced SQL for Data Science: Time series covering PostgreSQL in linear regression.
		https://www.lynda.com/SQL-tutorials/Advanced-SQL-Data-Science-Time-Series/774912-2.html
30-07-19	33	2. Encouraging @chijoke.roy @Helena Barmer @Adeline Chang @Temitope Oladokun
		1. Continued working on my conversational AI chatbot project. Wrote the code for on keyword matching and response generation.
		2. I'm still figuring out which dataset to use for federated learning and/or encrypted deep learning.
31-07-19	34	3. I want to thank all the people who have been encouraging me in this program especially #deeplearning #artificialintelligence #machinelearning #facebookudacityscholar #wmn_who_code #datascience Helena Barmer Temitope Oladokun Oluwatobi Ateniola Shubhangi Jena Muhammad Naufil Ayesha Manzur
		1. Worked on the Intent and Entity file for my Conversational AI chatbot project.
		Squeezing out time to work on these projects after a hard day's work and running a family is ... kinda tough. We are wired to be resilient so I will keep pushing on.
01-08-19	35	2. Encouraging @Berenice @Evi @Jess @Dammy @Helena Barmer
		1. Ordered my Raspberry Pi kit today for my Federated learning or encrypted deep learning personal project.
		2. Read the paper "Deep Learning for Encrypted Traffic Classification
		https://arxiv.org/pdf/1810.07906.pdf
02-08-19	36	3. Watched the on" Using Raspberry Pi and Pytorch Deep Learning to Detect Early Signs of Dementia by Alexander Gkiokas. 4. Encouraging @Evi @Berenice @Anna Jones @Helena Barmer @Dammy @Temitope Oladokun @chijioke.roy @Oluwarotimi Adesina @AGU CHIDIEBERE FRANCIS
		1. Attended 1-hour zoom virtual meetup for #sg_pytorch-robotics with many awesome group members sharing information about the Project Showcase challenge.
		2. Asked and answered questions in slack.
		3. Worked on my conversational AI chatbot project using Python and nltk.
03-08-19	37	Fixed some bugs on my code.
		3. Encouraging @Berenice @Jess @Helena Barmer
		1. Attended #wmn_who_code zoom meetup led by @Helena Barmer.
		2. Attended #sg_nigerian zoom weekly meetup to discuss group projects and program status with the group members.
		3. Worked on my personal conversational AI project using python and nltk. It works but I still need to fix a glitch with my bot responses.
04-08-19	38	4. Completed the two projects today: encrypted deep learning and federated learning using the MNIST dataset. Will have to try this project on other datasets as well.
		5. Thanks to all of you for being awesome and encouraging @Jess @Berenice @AGU CHIDIEBERE FRANCIS @Temitope Oladokun @Jehoshaphat @Jethro Sam-Marcus @Ebinbin Ajagun @Oluwarotimi Adesina @Ateniola Oluwatobi Victor @Oladimej Mudele @Ivy @Joyce Obi @AGU CHIDIEBERE FRANCIS
05-08-19	39	1. Started working on Federated Learning project with MNIST fashion dataset.
		1. I started setting up my Raspberry Pi kit today for Personal Project.
		Found out I need 5 port Ethernet switch.
		Ordering the switched. Still working on configuring the raspberry pis.
06-08-19	40	Encouraging and also celebrating @Berenice for completing her Deep Learning Nanodegree.
		1. Didn't have much time to work on any of my projects today. I rather listened to Data Analytics podcast here: https://podcasts.apple.com/ca/podcast/making-data-simple-internal-data-science-for-enterprise/id605818735?i=1000446305005 https://podcasts.apple.com/ca/podcast/rebroadcast-ep-7-how-data-science-is-helping-to-improve/id605818735?i=1000444859343 2. Watched the video, Encrypted Deep Learning : A Guide to Privacy Preserving Speech Processing. https://youtu.be/2k9_AzfMfsE
07-08-19	41	3. Tried my Raspberry Pi configuration the Pi still doesn't boot on TV or my monitor. Not sure why. I tried it many times even after plugging the power source. The Pi's LED turns on but no screen output. I'll still continue tomorrow and hopefully get it resolved. 3. Encouraging @Berenice @Bearbear@Helena @Adeline Chang @Shubhangi Jena @Shudipto Trafder @Sarah Majors @chijioke.roy @Muhammad Naufil @Ayesha Manzur @Dammy @Jess
08-08-19	42	Day 42 of tasktag#60daysofudacity 1. Interacted with some of my group members in hashtag#sg_nigerian and hashtag#sg_pytorch-robotics about project showcase progress and status. 2. Worked on my personal federated learning project on Colab using Pytorch and Pysyft
		1. Improved my code in an Encrypted Deep Learning project.
		2. Read this paper: https://www.researchgate.net/publication/321095429_CryptoDL_Deep_Neural_Networks_over_Encrypted_Data
09-08-19	43	Encouraging @T Purushotham @Helena Barmer @Jethro Sam-Marcus @Evi @Frida

Date	#	Content
10-08-19	44	1. Watched the videos on lesson 8: encrypted deep learning and implemented some of the Secure encryption concepts in my code.
11-08-19	45	1. Attended 2-hour zoom meetup with the group members of #sg_nigerian to discuss project progress. In attendance at the meeting were: @Ebinbin Ajagun @Temitope Oladokun @AGU CHIDIEBERE FRANCIS @Precious @Ateniola Oluwatobi Victor @Joyce @Jethro Sam-Marcus 2. Updated readme file for the #sg_pytorch-robotics for the Project Showcase challenge
12-08-19	46	1. Progressed on data gathering for the #sg_nigerian project. 2. Read and Practiced this tutorial to familiarize myself with the technology stack needed to complete my group project. https://pytorch.org/tutorials/beginner/dcgan_faces_tutorial.html Encouraging @Berenice @Bearbear @Helena Barmer @Jess @Frida @Ateniola Oluwatobi Victor @Jethro Sam-Marcus @Ebinbin Ajagun @Dammy @Precious @Temitope Oladokun @AGU CHIDIEBERE FRANCIS @Adeline Chang @Balkesh Choudhary @Ingus Terbeta @Ayesha Manzur
13-08-19	47	Continued with image gathering for the #sg_nigerian project. Encouraged more than 3 scholars on SPAIC challenge
14-08-19	48	1. Added more 117 images to the dataset for the #sg_nigerian group project. 2. Sneak peek: Fashion images. It will be fun to see what we come up with using DCGAN (Deep Convolutional Generative Adversarial Network) I tried writing my code for my group project showcase challenge. Import required libraries, load the dataset and performed some data processing using Pytorch. The challenge was at the point of loading the dataset from a group GDrive into the colaboratory file which is also stored in the same directory. I received warnings about this "Colab not being run by Google. Run anyways ". Each time I clicked run anyways, the Colab froze. I haven't encountered such problems before and couldn't find any real solutions on search engine.
15-08-19	49	Though on a business travel, I still made some progress by running my code on my local computer jupyter notebook.
16-08-19	50	1. Worked on the GANs code for my group project. #pytorch 2. Started writing a blog post on the project equipment setup for the #sg_pytorch-robotics project "Federated Learning with Raspberry Pi. Encourage more than 3 scholars.
17-08-19	51	1. Completed my keystone project for the SPAIC course where I implemented federated learning using the FashionMNIST dataset. 2. Attended #sg_pytorch-robotics weekly zoom meetup with the following members in attendance : @Jess @Helena Barmer @Juan Carlos Kuri Pinto @Ankur Bhatia @Elena Kutanov @Shivam Raisharma @Suparna S Nair @Temitope Oladokun @Ivy @Stanislav Ladyzhenskiy @Mateusz @Shashi Gharti @cibaca @Sourav @Sayed Maheen Basheer @Ayesha Manzur @Pooja Vinod @Nirupama Singh @Ebinbin Ajagun @Archit 3. My keystone project can be found here: https://github.com/Joycechidi/Deep-Learning-/blob/master/Federated_Deep_Learning_in_Pytorch_Pysyft.ipynb 4. Wrote a blog post about the Project Equipment setup for the #sg_pytorch-robotics group project here: "Federated Learning With Raspberry Pi: Project Equipment Setup" by Joyce Chidiedi https://link.medium.com/7Lm36WYf9Z
18-08-19	52	1. Completed my second keystone project where I implemented EncryptedDeep Learning Classification With PyTorch and Pysyft of CIFAR-10 dataset. Github link for the project: https://github.com/Joycechidi/Deep-Learning-/blob/master/Encrypted_Deep_Learning_Classification_on_CIFAR10_Dataset.ipynb 2. Encouraging my hardworking teammates and friends on the last day of this challenge. Keep up the good speed. @Helena Barmer @Dammy @Ebinbin Ajagun @Frida @Jess @Jethro Sam-Marcus @Temitope Oladokun @Shubhangi Jena @Sarah Majors @Suparna S Nair @Berenice
19-08-19	53	1. Worked on implementing encrypted deep learning on the APTOS Diabetic Retinopathy Kaggle project for Blindness Detection. Since this dataset is very sensitive, it will be very useful to encrypt the model and the input data. Encouraging @Berenice @Evi @Ebinbin Ajagun @Helena Barmer @Digante @Temitope Oladokun @Jethro Sam-Marcus @Precious @ChijiokeRoy
20-08-19	54	1. Spent time studying this course on LinkedIn Learning- "Cognitive Technologies: The Real Opportunities for Business which is about how AI technology are currently applied in businesses and what it holds for the future. https://www.lynda.com/Deloitte-Insights/10427897-1.html 2. Connected with fellow scholars through LinkedIn. 3. Worked on encryption of the model and data for Blindness Detection project 4. Encouraging @Anna Scott @Frida @Berenice @Ateniola Oluwatobi Victor @Suparna S Nair 5 days to go!!!
21-08-19	55	1.Refreshed my memory on Data Wrangling with https://campus.datacamp.com/courses/regular-expressions-in-python/ Encouraging @Dammy @Anju Mercian @Yemi @Berenice Well done ladies and gentlemen. We are almost close to the finishing line.
22-08-19	56	Looked into Deep Learning with OpenCV. https://www.lynda.com/OpenCV-tutorials/Introduction-Deep-Learning-OpenCV/5034175-2.html Encouraging @Berenice @Bearbear @Helena Barmer @Frida @Berenice
23-08-19	57	Worked on implementing encrypted deep learning on Kaggle dataset. Making progress but having challenges with Syft running on the kernel without internet. Encouraging all scholars to finish up the race. :clapping: :clapping: :clapping: :clapping:
24-08-19	58	Worked on using different types of regression (linear, 2nd polynomial, Lasso, and Ridge) analysis for predicting the price of Toyota Corolla. Dataset from Kaggle Encouraging @Berenice @Evi @Jess @Ebinbin Ajagun @Dammy @Precious @Temitope Oladokun
25-08-19	59	Day 59 of #60daysofudacity Almost to the finish line. Worked on the Bike Sharing Dataset on Kaggle. Full data analysis to get a deep insight into how customers and subscribers use the bikes. https://www.kaggle.com/cwd251/exploratory-data-analysis-on-bike-sharing-dataset/data Congratulating all my study buddies on this challenge for a job well done. @Jethro Sam-Marcus @Ebinbin Ajagun @Dammy @Helena @Helena Barmer @Jessica @Jessica B @Rumanu @Berenice @Frida @Ateniola Oluwatobi Victor @ChijiokeRoy
26-08-19	60	Day 60 of #60daysofudacity :boom: Worked on "Analyzing Big Data with Hive": https://www.lynda.com/Hive-tutorials/Understanding-table-structures-Hive/534413/573295-4.html?autoplay=true :boom:Finally, the finish line is here. I can't believe how much work I put into this challenge. :boom: Final lap being the 60 straight days of coding, building projects, writing blog posts, meeting with various project groups to build and deliver awesome projects in Deep learning with federated learning or encrypted deep learning. Not forgetting being part of the Blindness Detection Kaggle competition. :boom: It's been a very rewarding challenge where I had to stretch my limits. :boom: Looking back at a blog post I wrote in June 2019, "It's Time To Re-evaluate Your 2019 Goals - 6 Months Gone". Coming to this challenge means I've checked off one goal from my 2019 list. It feels so good to complete an objective. https://www.mindsetnuggets.com/its-time-to-re-evaluate-your-2019-goals-6-months-gone/ Congratulations to my study buddies who have been so encouraging and helpful throughout this journey. @Jethro Sam-Marcus @Helena Barmer @Berenice @Frida @Dammy @Temitope Oladokun @Ebinbin Ajagun @Ateniola Oluwatobi Victor @Ayesha Manzur @Evi @erinSnPAI @ChijiokeRoy @Jess @Muhammad Naufil @Oudariya Sen Sarma @Oladimeji Mudele @Suparna S Nair @Yemi. Thank you all.