

Digital Developer Conference: Data & AI

[A Regional Event - IBM]

Date: June 08, 2021

Theme:

Future of Work & Data & AI workshop " AutoAI - Build, Test and Deploy AI models in minutes, without any coding!!".

A Regional and Topical Event by IBM named “Digital Developer Conference: Data & AI”, was held on June 8 2021 from 10:30 AM to 01 PM. This regional event was organized to bring together local developer communities to engage with leaders and experts from their region. Get thorough understanding of industry-recognized data and AI skills from IBM experts, partners, and the worldwide community. Mr. Deepak Painuli & Mr. Namit Khanduja, Assistant Professor, FET-GKV Haridwar, along with 100+ students from CSE branch of GKV has attended and learned industry’s expected skills through hands-on workshop conducted during the conference.

This online event comprises of two sessions, Former session has been on discussion on “Future of Work” and later session has been a Hands-on session on “AutoAI”, first session has been started with welcome address by Priya Mallya, Hybrid Cloud Build Team & Advocacy Leader, Asia Pacific-IBM, who hosted event very beautifully with introduction of panel members (Enlisted below) and discussed the change Covid-19 pandemic made to day today life of human kind, followed by Keynote address from Mr.Rajeev Palanki, Employee Experience Leader, India Software Labs-IBM, in which he emphasized on “8-Human Skills for Future of Work” attributed by Humility, Curiosity and Adaptability., followed by second session, hands on workshop on Data & AI workshop " AutoAI - Build, Test and Deploy AI models in minutes, without any coding!!"(Snapshot – 01-07).




Panel Discussion Members were as followed:-

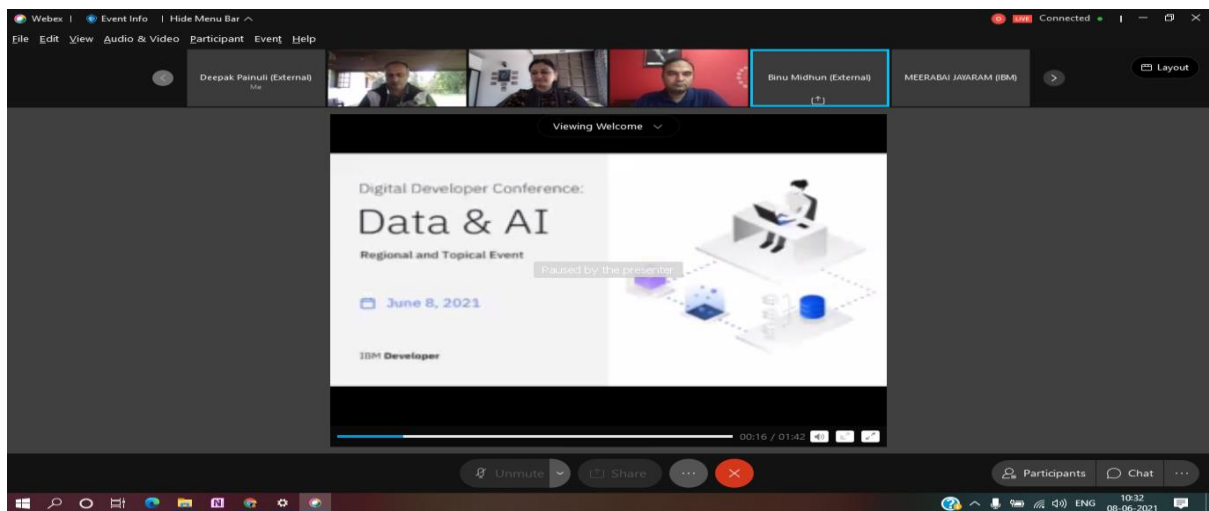
Mr. Chinni Sreenivas	VP Human Resources	India & South Asia, IBM
Dr. Veena H Bhat	Senior Data Scientist	Mearsk
Mr. Kumar Rangarajan	Co-Founder	Slang Labs

Former session was followed by Second Session, which had been a hands-on workshop on Data & AI workshop " AutoAI - Build, Test and Deploy AI models in minutes, without any coding!!" by Bindu Midhun, Data Scientist and Developer Advocate, Hybrid Cloud Build Team, IBM, in which hands on practice was given on “ how to use IBM Watson: Auto AI”(Snapshot – 08-20).

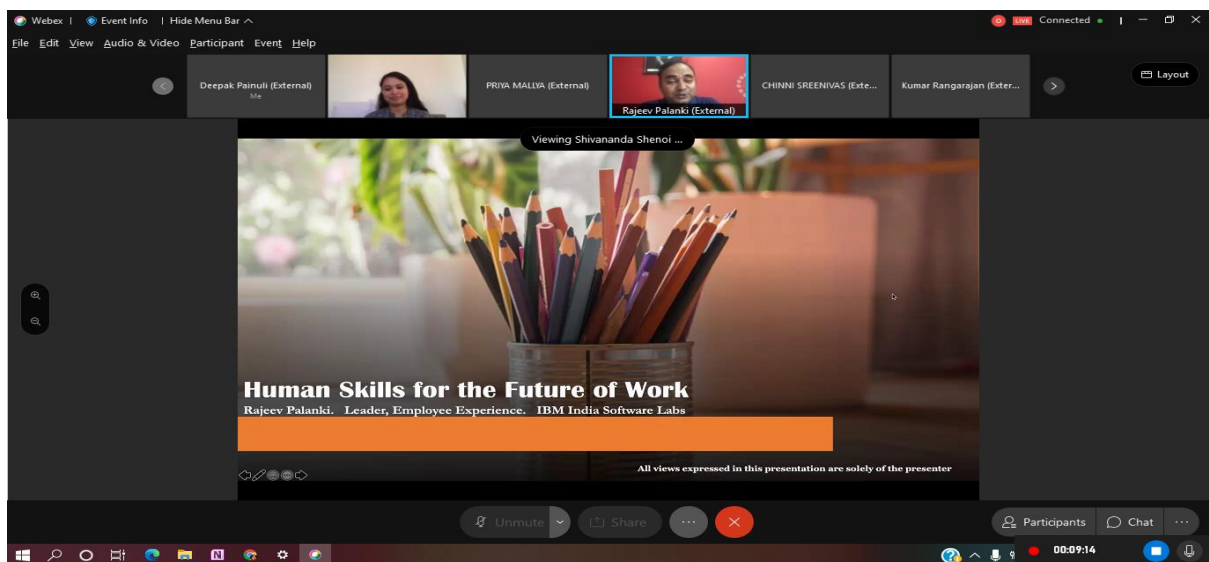
In this, trainer have shown the step-wise hands-on to use IBM-Watson & AutoAI Services to use for development and deployment of Machine Learning solutions to real world industrial forecasting and prediction problems in very nice manner.

Useful Resources from Event:-

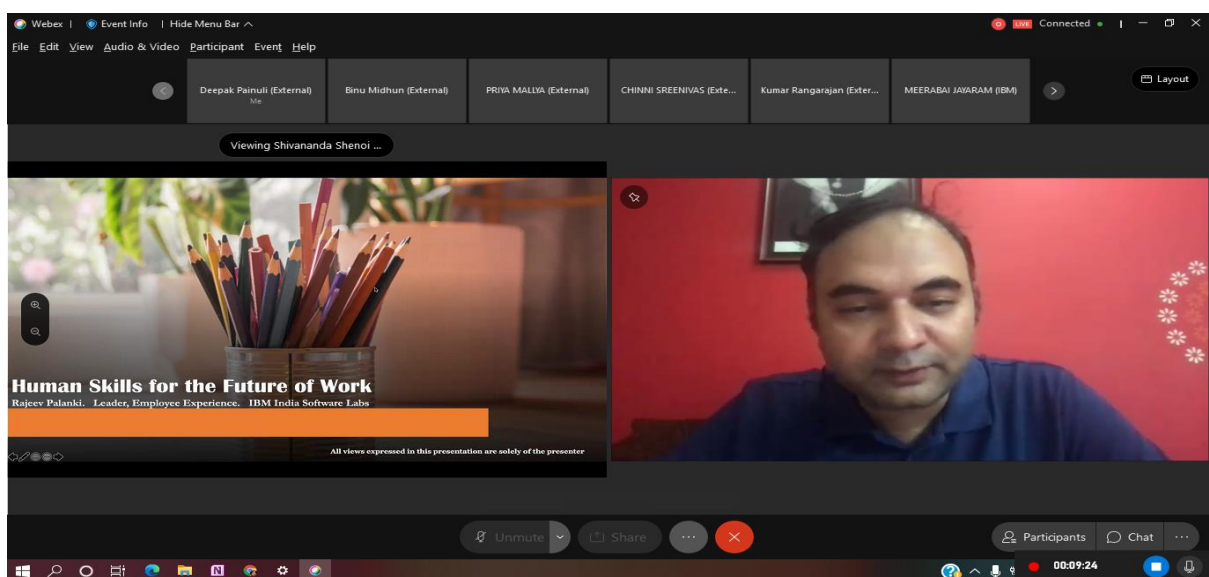
-  **Recording of the session accessible on:** bit.ly/DEG_India.
-  **AutoAI Implementation Details:**
<https://dataplatfrom.cloud.ibm.com/docs/content/wsj/analyze-data/autoai-details.html#data-prep>.
-  **Workshop Lab book:** <https://developer.ibm.com/tutorials/automate-model-building-with-autoai/>.



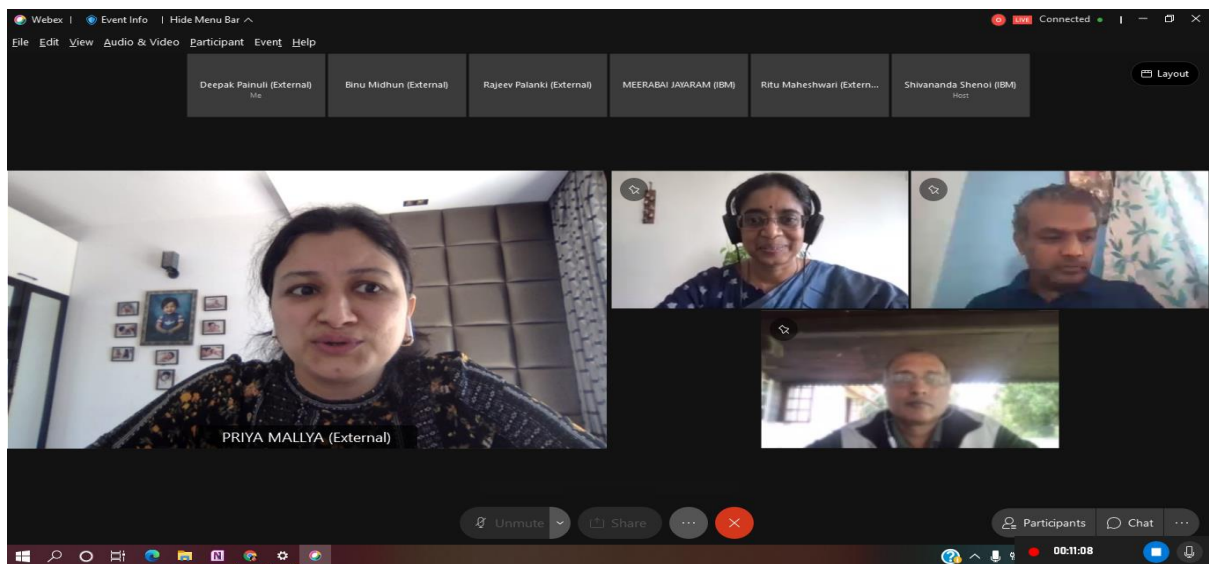
Snapshot - 01



Snapshot - 02



Snapshot - 03



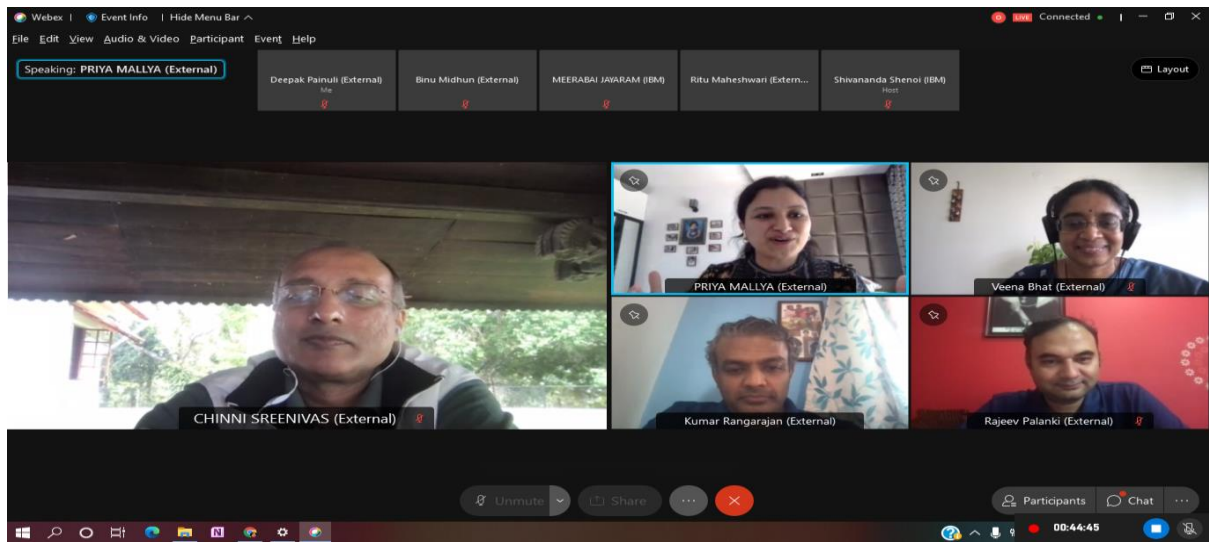
Snapshot - 04



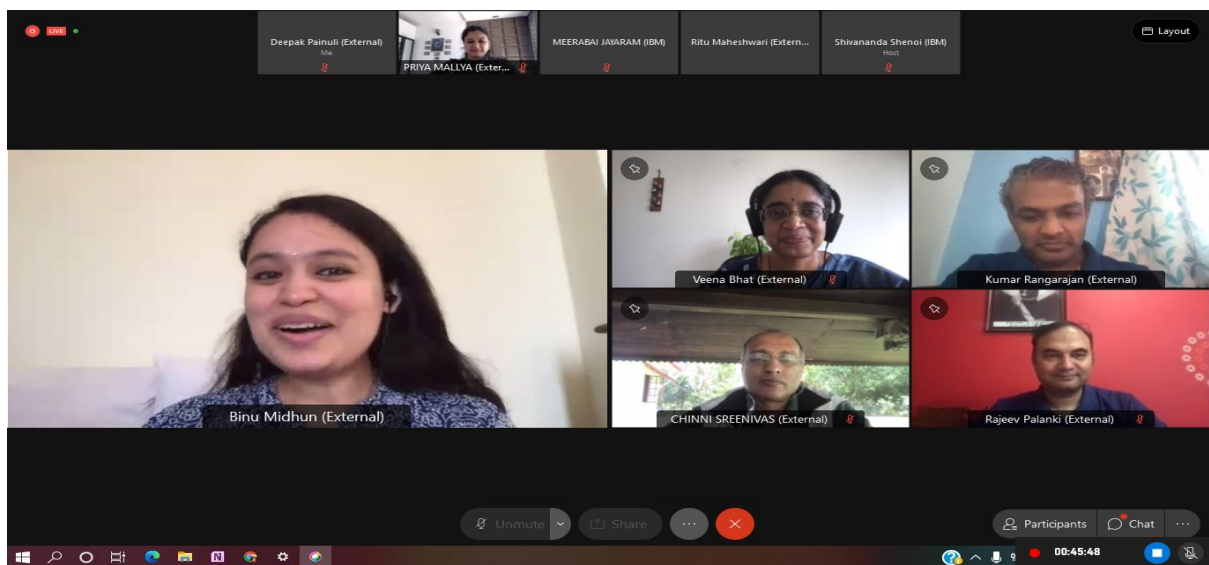
Snapshot - 05



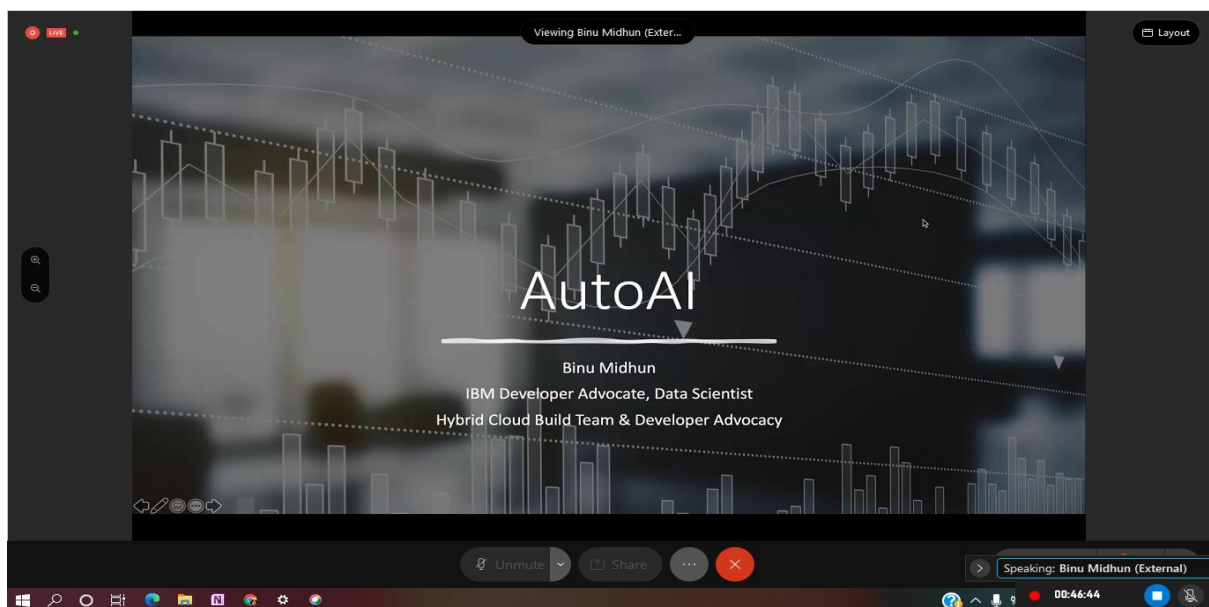
Snapshot - 06



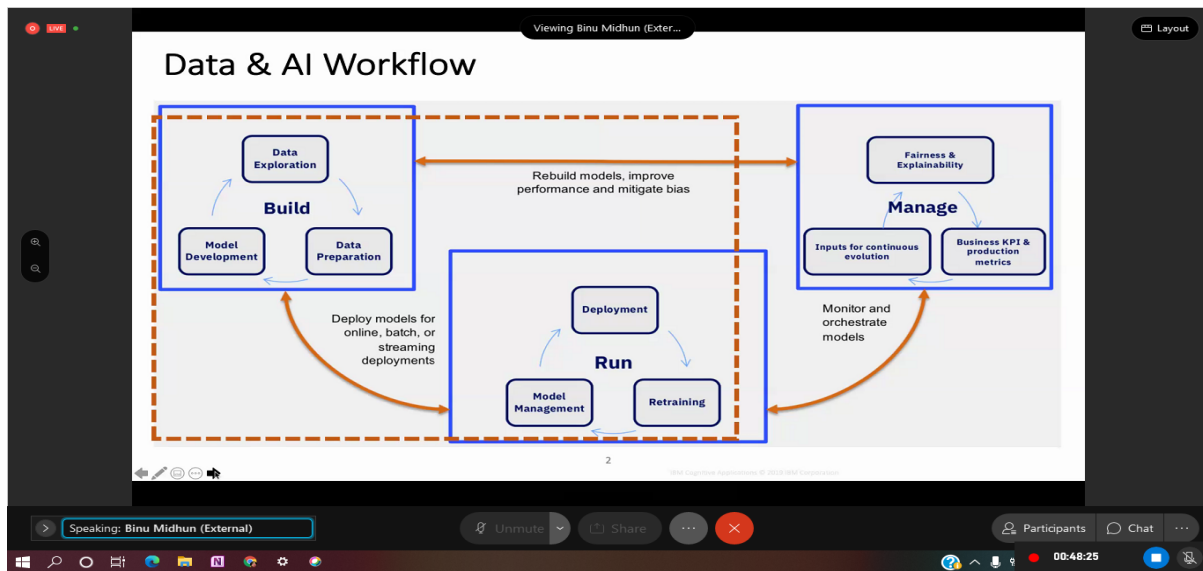
Snapshot – 07



Snapshot – 08



Snapshot – 09



Snapshot - 10

Lab Pre-requisites

Data & AI Hands-On Workshop

IBM Cloud Account Creation → <https://ibm.biz/BdFsgm>

Please make sure to create the Watson Studio & Machine Learning service in the same region:

Watson Studio (Build) → <https://cloud.ibm.com/catalog/services/watson-studio>

Machine Learning (Deploy) → <https://cloud.ibm.com/catalog/services/machine-learning>

Object Storage (Storage) → <https://cloud.ibm.com/objectstorage/create>

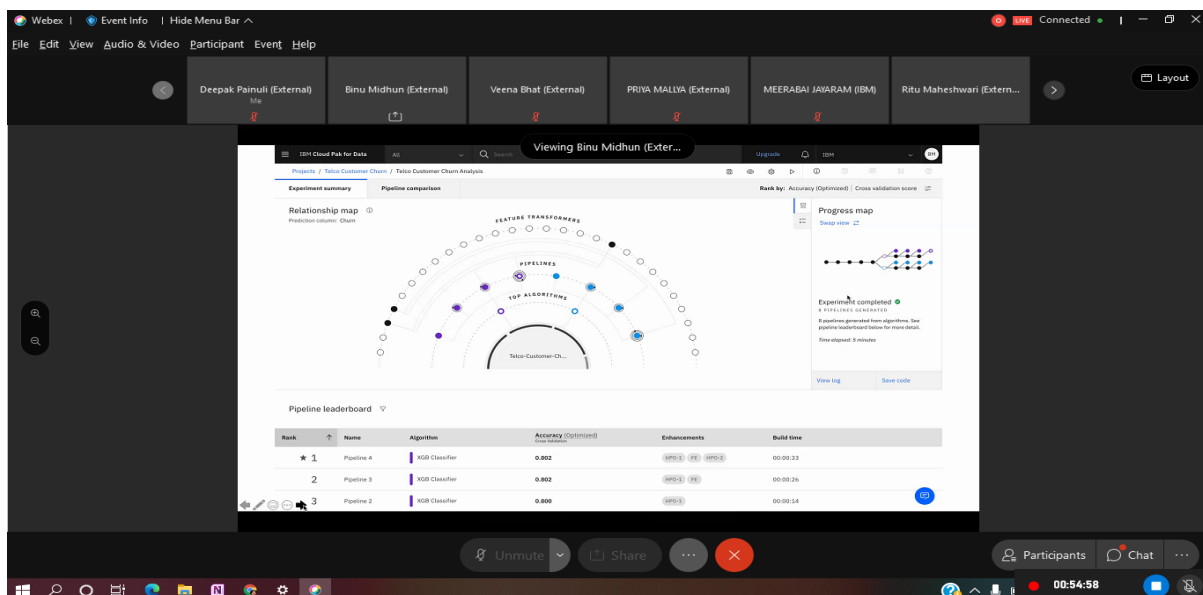
Dataset Download Link → https://s3.us.cloud-object-storage.appdomain.cloud/developer/default/tutorials/automate-model-building-with-autoai/static/ibm-customer-churn.csv?_ga=2.17301115.1117354192.1623088998-1858842536.1623088998

Speaking: Binu Midhun (External)

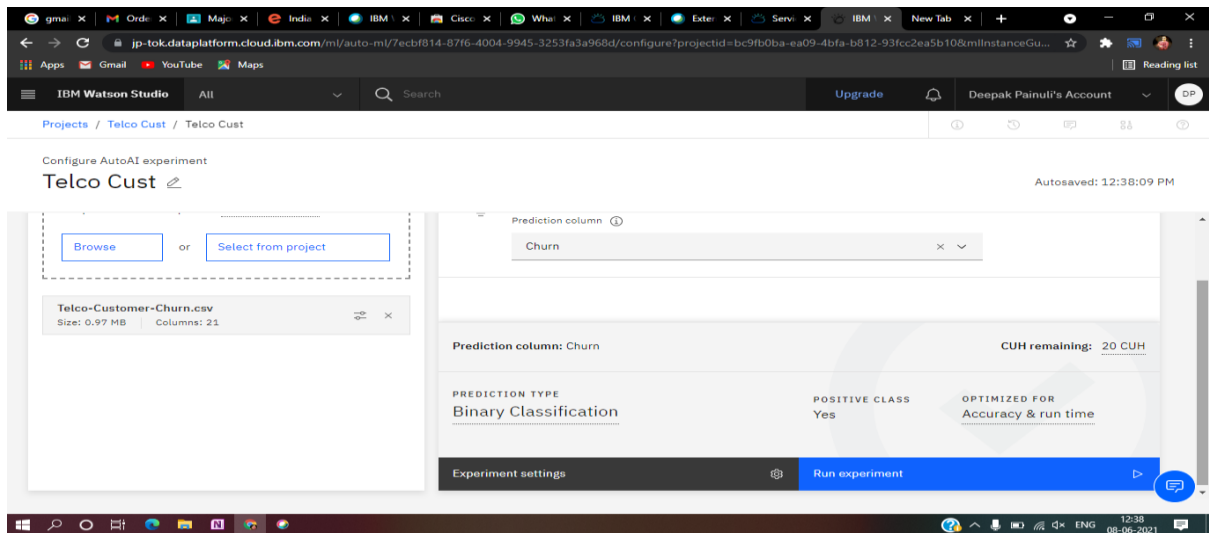
Unmute Share

00:50:24

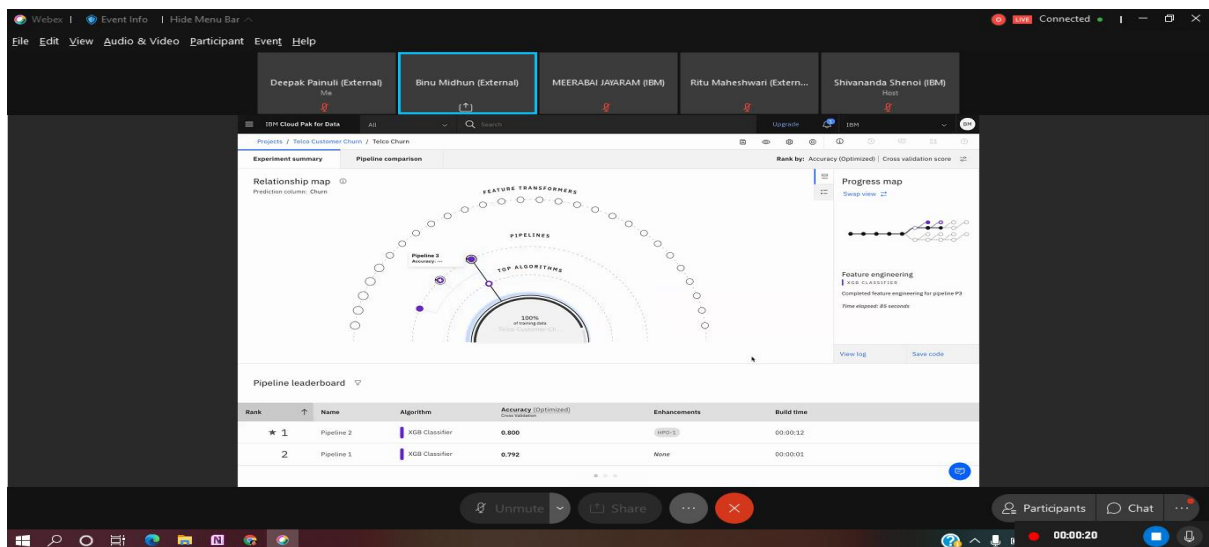
Snapshot - 11



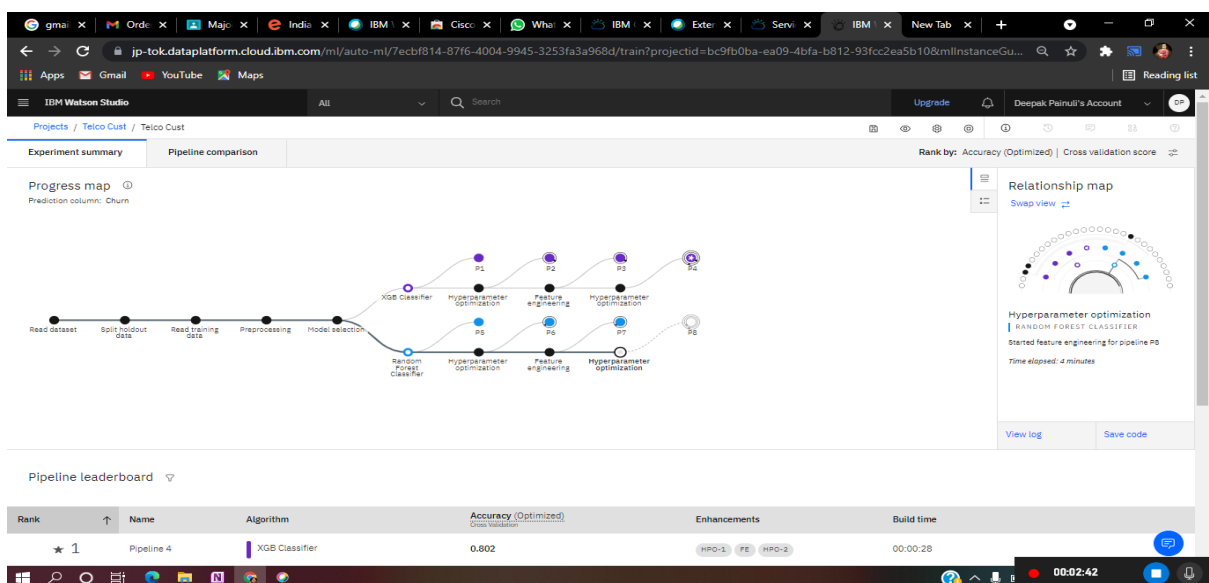
Snapshot - 12



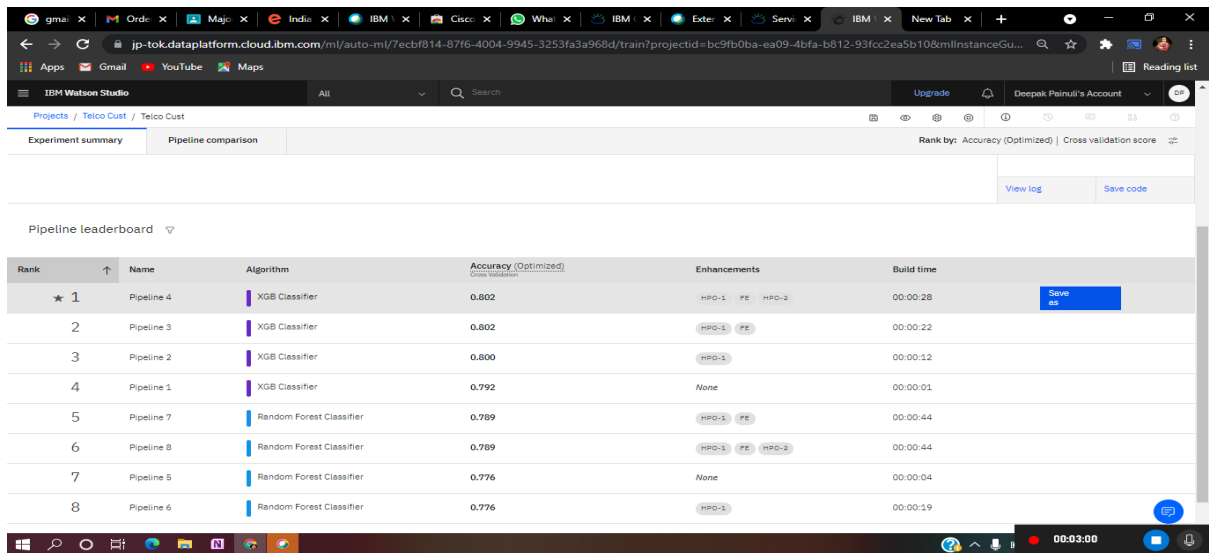
Snapshot – 13



Snapshot - 14



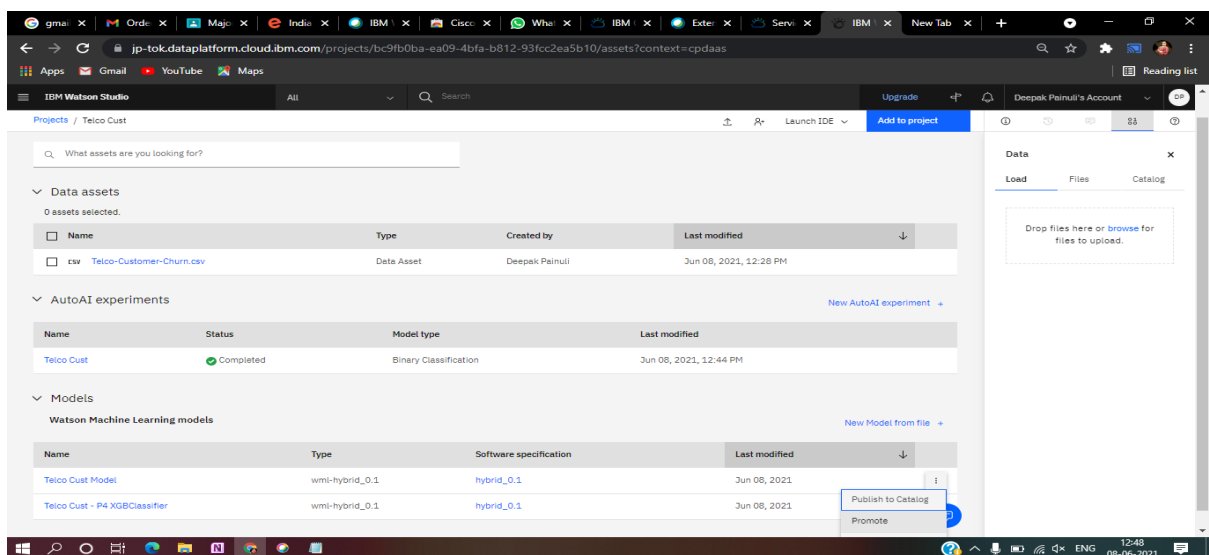
Snapshot – 15



The screenshot shows the IBM Watson Studio interface with the 'Pipeline comparison' tab selected. The 'Rank by: Accuracy (Optimized)' is chosen, and the 'Cross validation score' is displayed. The 'Pipeline leaderboard' table lists eight pipelines, ranked by accuracy. Pipeline 4 is the top performer with an accuracy of 0.802. The table includes columns for Rank, Name, Algorithm, Accuracy (Optimized), Enhancements, and Build time. A 'Save as' button is visible next to Pipeline 4.

Rank	Name	Algorithm	Accuracy (Optimized)	Enhancements	Build time
1	Pipeline 4	XGB Classifier	0.802	HPO-1 FE HPO-2	00:00:28
2	Pipeline 3	XGB Classifier	0.802	HPO-1 FE	00:00:22
3	Pipeline 2	XGB Classifier	0.800	HPO-1	00:00:12
4	Pipeline 1	XGB Classifier	0.792	None	00:00:01
5	Pipeline 7	Random Forest Classifier	0.789	HPO-1 FE	00:00:44
6	Pipeline 8	Random Forest Classifier	0.789	HPO-1 FE HPO-2	00:00:44
7	Pipeline 5	Random Forest Classifier	0.776	None	00:00:04
8	Pipeline 6	Random Forest Classifier	0.776	HPO-1	00:00:19

Snapshot - 16



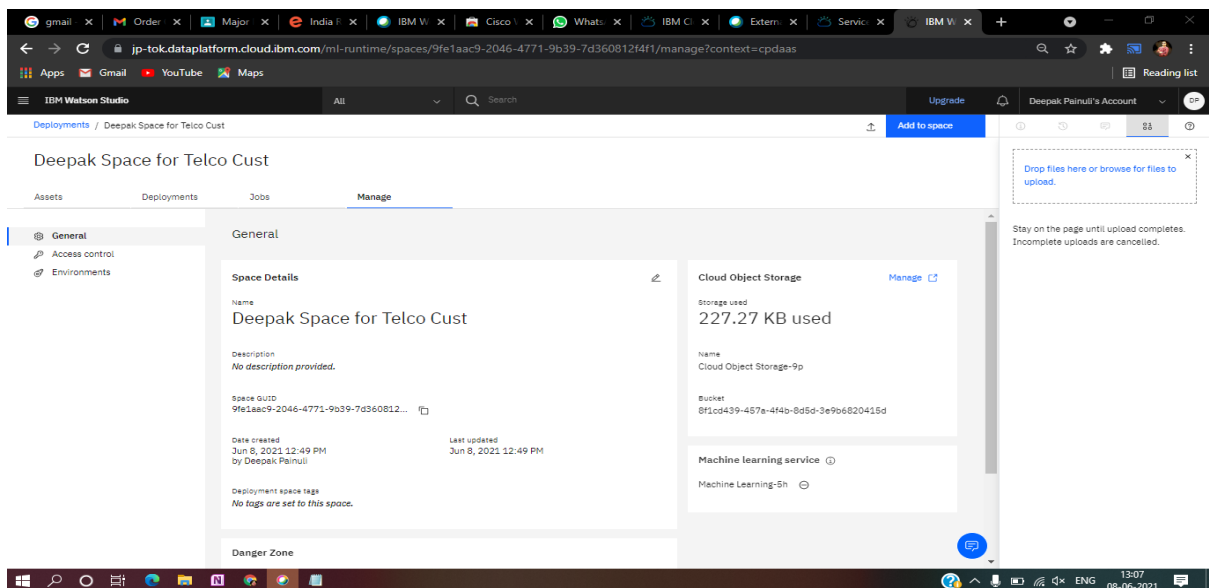
The screenshot shows the IBM Watson Studio interface with the 'Assets' and 'AutoAI experiments' tabs. The 'Assets' section shows a table with one asset: 'Telco-Customer-Churn.csv'. The 'AutoAI experiments' section shows a table with one experiment: 'Telco Cust' with a status of 'Completed'. The 'Models' section shows a table with two models: 'Telco Cust Model' and 'Telco Cust - P4 XGBClassifier'.

Name	Type	Created by	Last modified
Telco-Customer-Churn.csv	Data Asset	Deepak Painuli	Jun 08, 2021, 12:28 PM

Name	Status	Model type	Last modified
Telco Cust	Completed	Binary Classification	Jun 08, 2021, 12:44 PM

Name	Type	Software specification	Last modified
Telco Cust Model	wml-hybrid_0.1	hybrid_0.1	Jun 08, 2021
Telco Cust - P4 XGBClassifier	wml-hybrid_0.1	hybrid_0.1	Jun 08, 2021

Snapshot - 17



The screenshot shows the IBM Watson Studio interface with the 'Deepak Space for Telco Cust' page. The 'General' tab is selected, showing details about the space, including its name, description, and creation date. The 'Cloud Object Storage' section shows the storage used (227.27 KB) and the bucket name. The 'Machine learning service' section shows the service name (Machine Learning-Sh).

Space Details	Cloud Object Storage	Machine learning service
<p>Name: Deepak Space for Telco Cust</p> <p>Description: No description provided.</p> <p>Space GUID: 9fe1aac9-2046-4771-9b39-7d360812f4f1</p> <p>Date created: Jun 8, 2021 12:49 PM by Deepak Painuli</p> <p>Last updated: Jun 8, 2021 12:49 PM</p> <p>Deployment space tags: No tags are set to this space.</p> <p>Danger Zone</p>	<p>Storage used: 227.27 KB used</p> <p>Name: Cloud Object Storage-9p</p> <p>Bucket: 8f1cd439-457a-444b-8d5d-3e9b6820415d</p>	<p>Machine learning service: Machine Learning-Sh</p>

Snapshot - 18

IBM Watson Studio

Deployments / Deepak Space for Telco Cust / Telco Cust Model / Deepak AI

Deepak AI

Deployed Online

API reference Test

Direct link

Endpoint: `https://jp-tok.ml.cloud.ibm.com/ml/v4/deployments/ae941f03-87b4-4157-918f-3eab48fcb801?space_id=9fe1aac9-2046-4771-9b39-7d360812f4f1&cont...`

Bearer token: IAM

Code snippets

curl

```
# NOTE: you must set $API_KEY below using information retrieved from your IBM Cloud account.
curl --insecure -X POST --header 'Content-Type: application/x-www-form-urlencoded' --header 'Accept: application/json' --data-urlencode "grant_type=urn:ibm:params:oauth:grant-type:apikey"
# the above CURL request will return an auth token that you will use as $IAM_TOKEN in the scoring request below
# TODO: manually define and pass values to be scored below
curl -X POST --header 'Content-Type: application/json' --header 'Accept: application/json' --header 'Authorization: Bearer $IAM_TOKEN' -d '{"input_data": [{"fields": [{"ARRAY_OF_INPUT_FIELDS}]']}'
```

Deepak AI

Created: Jun 8, 2021 1:08 PM

Updated: Jun 8, 2021 1:08 PM

Deployment ID: ae941f03-87b4-4157-918f-3eab4...

Software specification: hybrid_01

Hybrid pipeline software specifications: autoai-kb_3.3-py3.7

Copies: 1

Description: No description provided.

Tags: Add tags to make assets easier to find.

Associated asset: Telco Cust Model

Model ID: 5a63e871-d932-4346-a700-d25c...

Snapshot - 19

IBM Watson Studio

Welcome, Deepak!

Learn by example: Step through solving a specific business problem in a sample project. Take a guided tutorial.

Work with data: Create a project for your team to prepare data, find insights, or build models. Create a project.

Extend your capabilities: Add tools, databases, or other features by creating services instances. Create a service.

Overview

Recent projects

Project Name	Time
Telco Cust	Today at 12:36 PM

Your services

Service Name	Time
Machine Learning-5h	Today at 12:14 PM
Watson Studio-4y	Today at 12:13 PM
Cloud Object Storage-9p	Today at 11:58

Notifications

Online deployment ready

The online deployment Deepak AI in space Deepak Space for Telco Cust is ready to access.

Deployment spaces

Space Name	Time
Deepak Space for Telco Cust	Today at 12:49 PM

New in gallery

SAMPLE PROJECT

Utilities Customer Micro-Segmentation

AUTHOR: IBM

MODIFIED: May 28, 2021

Snapshot - 20