

# **Port Forwarding**

# Kubeflow ML Pipeline

```
C:\Users\Harshav Kumar.QUANTIPHI-2611>kubectrl port-forward -n kubeflow svc/ml-pipeline-ui 8080:80
```

```
Forwarding from 127.0.0.1:8080 -> 3000
```

```
Forwarding from [::1]:8080 -> 3000
```

```
Handling connection for 8080
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Handling connection for 8080
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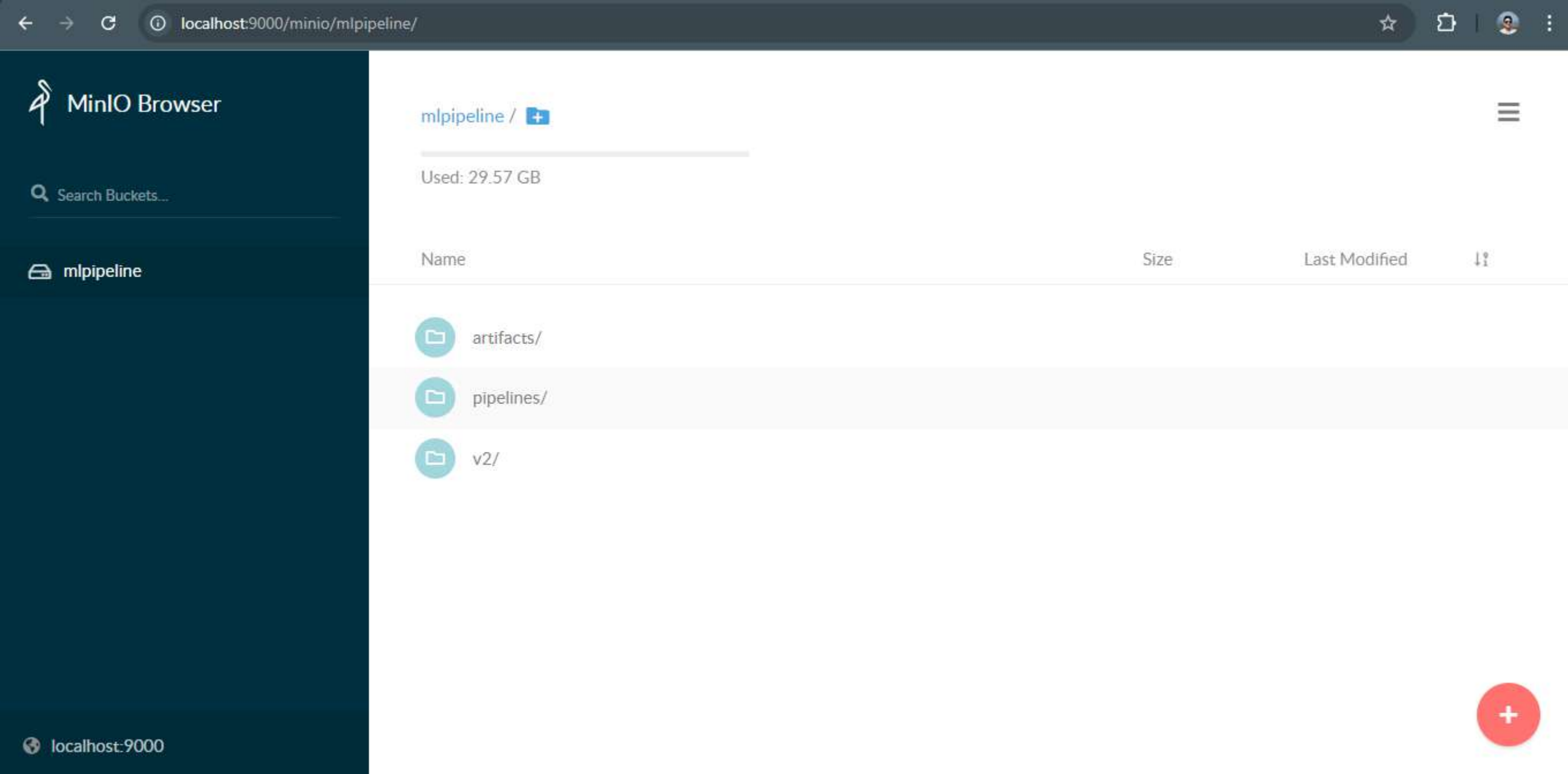
```
Handling connection for 8080
```

```
Handling connection for 8080
```



# Minio Storage Browser

```
C:\Users\Harshav Kumar.QUANTIPHI-2611>kubect port-forward svc/minio-service -n kubeflow 9005:9000
Forwarding from 127.0.0.1:9005 -> 9000
Forwarding from [::1]:9005 -> 9000
```



mlpipeline /

Used: 29.57 GB

Name	Size	Last Modified	
------	------	---------------	--

artifacts/

pipelines/

v2/



# Push Gateway



```
C:\Users\Harshav Kumar.QUANTIPHI-2611>kubect1 port-forward pushgateway-649f76c576-ktjr5 -n kubeflow 9090:9091
Forwarding from 127.0.0.1:9090 -> 9091
Forwarding from [::1]:9090 -> 9091
```

# Runtime Information

Started	2024-08-30 09:06:34.98380338 +0000 UTC m=+0.089660329
---------	---

# Build Information

branch	HEAD
buildDate	20240608-15:04:08
buildUser	root@2167597b1e9c
goVersion	go1.22.4
revision	d1ca1a6a426126a09a21f745e8ffbaba550f9643
version	1.9.0

# Startup Flags

log.format	logfmt
------------	--------

# Kubernetes Pods

C:\Users\Harshav Kumar.QUANTIPHI-2611>kubectl get pod -A

NAMESPACE	NAME	READY	STATUS	RESTARTS	AGE
cert-manager	cert-manager-cainjector-5fd6444f95-mvmwr	1/1	Running	2 (20h ago)	47h
cert-manager	cert-manager-d894bbbd4-8fqwj	1/1	Running	4 (4h36m ago)	47h
cert-manager	cert-manager-webhook-869674f96f-7vx2m	1/1	Running	2 (20h ago)	47h
default	grafana-6b47fb7fcc-7httz	1/1	Running	0	4h9m
istio-ingress	istio-ingress-6dc54f868c-qb74w	1/1	Running	2 (20h ago)	47h
istio-system	istiod-dd95d7bdc-fcxbz	1/1	Running	2 (20h ago)	47h
kserve	kserve-controller-manager-c47cbb7c6-7lvjg	2/2	Running	4 (20h ago)	47h
kube-system	coredns-76f75df574-5x5ph	1/1	Running	2 (20h ago)	2d
kube-system	coredns-76f75df574-hfvfr	1/1	Running	2 (20h ago)	2d
kube-system	etcd-docker-desktop	1/1	Running	2 (20h ago)	2d
kube-system	kube-apiserver-docker-desktop	1/1	Running	2 (10h ago)	2d
kube-system	kube-controller-manager-docker-desktop	1/1	Running	2 (20h ago)	2d
kube-system	kube-proxy-plf6b	1/1	Running	2 (20h ago)	2d
kube-system	kube-scheduler-docker-desktop	1/1	Running	3 (20h ago)	2d
kube-system	storage-provisioner	1/1	Running	3 (20h ago)	2d
kube-system	vpnkit-controller	1/1	Running	2 (20h ago)	2d
kubeflow	cache-deployer-deployment-cf9646b9c-cj79z	1/1	Running	2 (10h ago)	2d
kubeflow	cache-server-56d4959c9-qjdd1	1/1	Running	2	2d
kubeflow	metadata-envoy-deployment-9c7db86d8-h6p72	1/1	Running	2 (20h ago)	2d
kubeflow	metadata-grpc-deployment-d94cc8676-m2h54	1/1	Running	13 (10h ago)	2d
kubeflow	metadata-writer-cd5dd8f7-56jxx	1/1	Running	5 (10h ago)	2d
kubeflow	minio-5dc6ff5b96-wfh8p	1/1	Running	1 (20h ago)	22h
kubeflow	ml-pipeline-64d6db5897-h27dh	1/1	Running	9 (10h ago)	2d
kubeflow	ml-pipeline-persistenceagent-77947c888d-9rqvk	1/1	Running	5 (20h ago)	2d
kubeflow	ml-pipeline-scheduledworkflow-676478b778-8xrvx	1/1	Running	2 (20h ago)	2d
kubeflow	ml-pipeline-ui-87b9d4fb6-n5rc1	1/1	Running	5 (10h ago)	2d
kubeflow	ml-pipeline-viewer-crd-8574556b89-c7hpp	1/1	Running	2 (20h ago)	2d
kubeflow	ml-pipeline-visualizationserver-5d7c54f495-zjh6s	1/1	Running	4 (10h ago)	2d
kubeflow	mysql-5b446b5744-mnjwg	1/1	Running	2 (10h ago)	2d
kubeflow	pushgateway-649f76c576-cklmx	1/1	Running	1 (20h ago)	32h
kubeflow	time-series-forecasting-pipeline-t9qzf-system-container-driver-1004890888	0/2	Completed	0	77m
kubeflow	time-series-forecasting-pipeline-t9qzf-system-container-driver-1454437353	0/2	Completed	0	87m
kubeflow	time-series-forecasting-pipeline-t9qzf-system-container-driver-2173917223	0/2	Completed	0	82m
kubeflow	time-series-forecasting-pipeline-t9qzf-system-container-driver-2509487930	0/2	Completed	0	76m
kubeflow	time-series-forecasting-pipeline-t9qzf-system-container-driver-3017979400	0/2	Completed	0	87m
kubeflow	time-series-forecasting-pipeline-t9qzf-system-container-driver-367540469	0/2	Pending	0	75m
kubeflow	time-series-forecasting-pipeline-t9qzf-system-container-driver-3841924042	0/2	Completed	0	82m
kubeflow	time-series-forecasting-pipeline-t9qzf-system-container-impl-1826784948	0/2	Completed	0	76m
kubeflow	time-series-forecasting-pipeline-t9qzf-system-container-impl-1950387465	0/2	Completed	0	82m
kubeflow	time-series-forecasting-pipeline-t9qzf-system-container-impl-3233997223	0/2	Completed	0	87m
kubeflow	time-series-forecasting-pipeline-t9qzf-system-container-impl-796461220	0/2	Completed	0	82m
kubeflow	time-series-forecasting-pipeline-t9qzf-system-container-impl-819196798	0/2	Completed	0	76m
kubeflow	time-series-forecasting-pipeline-t9qzf-system-dag-driver-1608447141	0/2	Completed	0	106m
kubeflow	weather-forecast-service-predictor-646846cb68-5n8d5	1/1	Running	0	75m
kubeflow	workflow-controller-679dcfdd4f-6nzwd	1/1	Running	2 (20h ago)	2d

C:\Users\Harshav Kumar.QUANTIPHI-2611>



03:04  
30-08-2024



# **Kubeflow experiment DAG**

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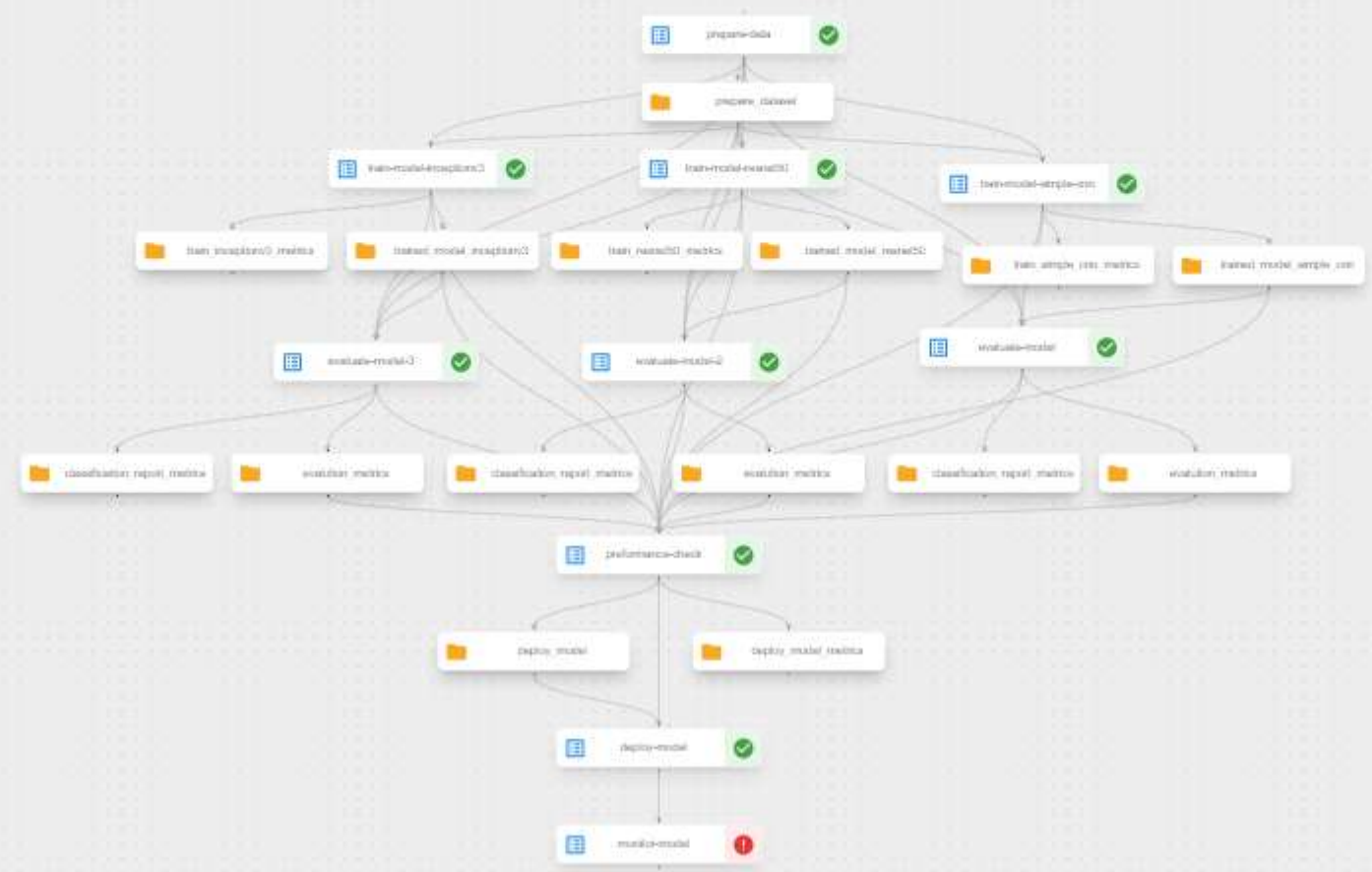
Experiments > image\_classification\_experiment

# image-classification-pipeline-with-serving-and-monitoring 2024-08

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Graph Detail Pipeline Spec

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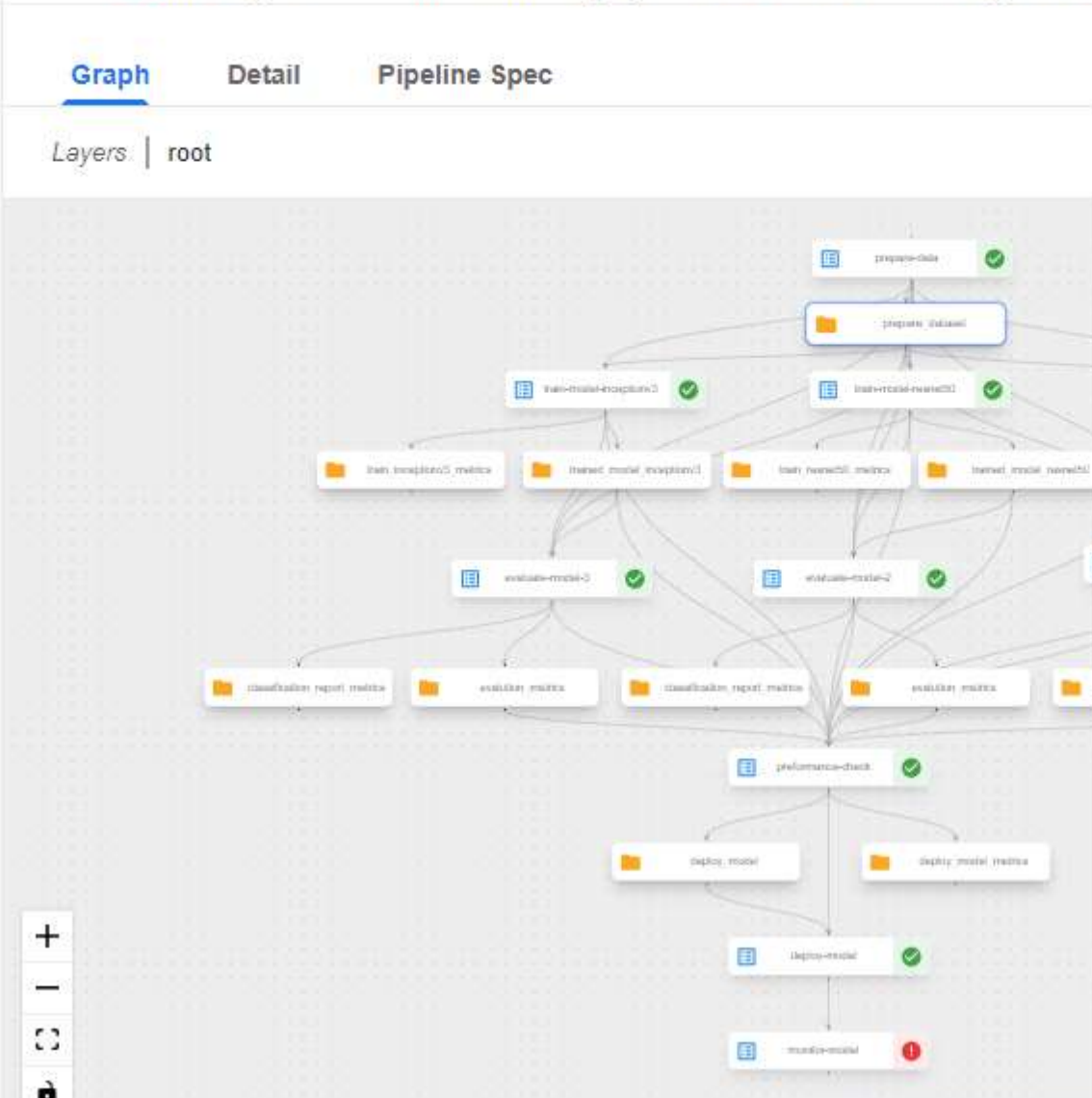


# **Kubeflow experiment Components**

# Data Preparation Component



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[×](#) prepare\_dataset

[Artifact Info](#) [Visualization](#)

This step corresponds to artifact "prepare\_dataset".

### Artifact Info

Upstream Task Name	prepare-data
Artifact Name	prepare_dataset
Artifact Type	system.Dataset
Created At	Fri Aug 30 2024 14:24:35 GMT+0530 (India Standard Time)

### Artifact URI

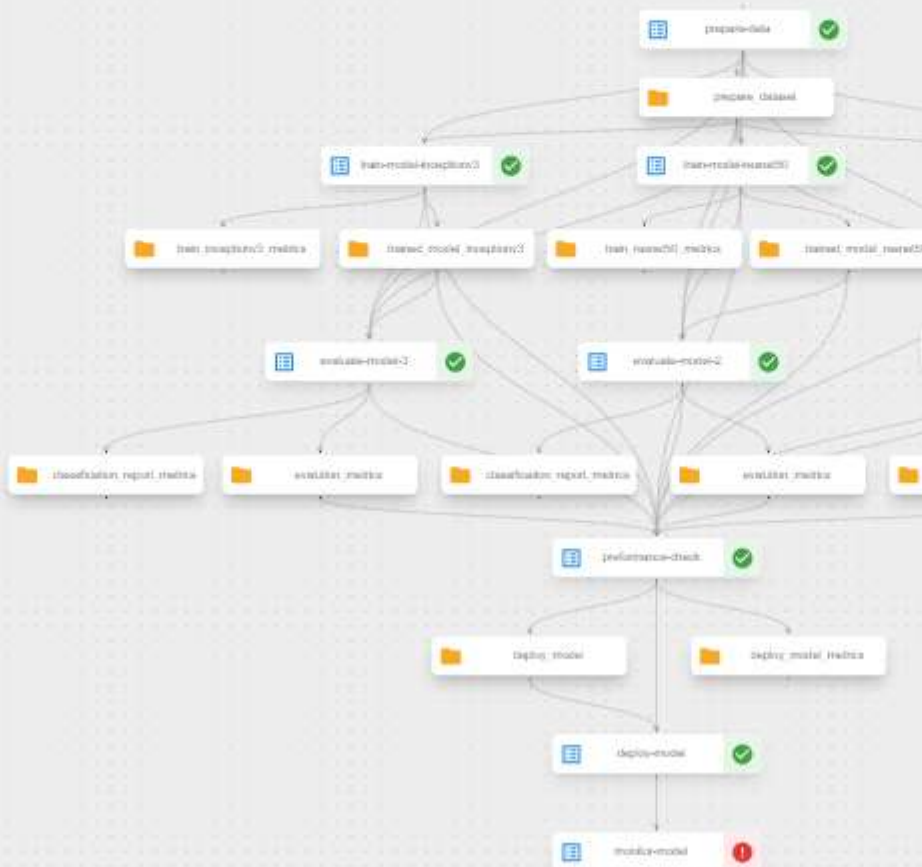
prepare_dataset	<a href="#">minio://mlpipeline/v2/artifacts/image-classification-pipeline-with-serving-and-monitoring/c1f8f6ba-64ee-45ec-80d1-45cec35d472d/prepare-data/prepare_dataset</a> <a href="#">View All</a>
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### Graph

### Detail

### Pipeline Spec

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×

```
prepare-data
```

## Input/Output

### Task Details

## Logs

```

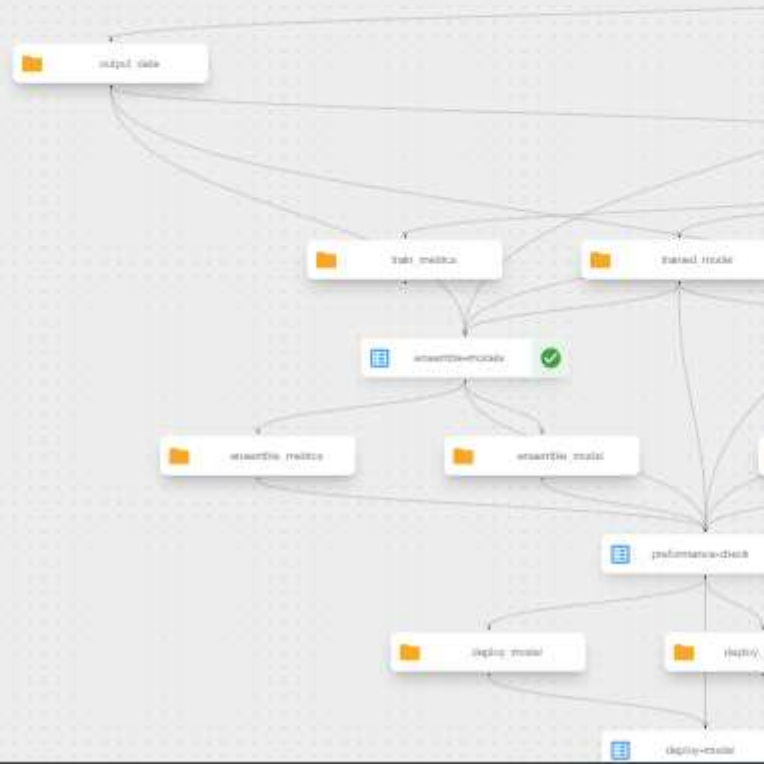
370 168853504/170498071 [=====>.] - ETA: 0s000000000000000000
371 169361408/170498071 [=====>.] - ETA: 0s000000000000000000
372 170303488/170498071 [=====>.] - ETA: 0s000000000000000000
373 170498071/170498071 [=====] - 22s 0us/step
374 Data preparation is complete.
375 [KFP Executor 2024-08-30 08:54:28,801 INFO]: Wrote executor output file to /tmp
376 /usr/local/lib/python3.8/runpy.py:111: FutureWarning: KFP will drop support for
377 __import__(pkg_name)
378 I0830 08:54:29.645632      27 launcher_v2.go:705] ExecutorOutput: {
379   "artifacts": {
380     "prepare_dataset": {
381       "artifacts": [
382         {
383           "name": "",
384           "uri": "minio://mlpipeline/v2/artifacts/image-classification-pipeline
385           "metadata": {}
386         }
387       ]
388     }
389   }
390 }
391 I0830 08:54:29.978711      27 object_store.go:175] uploadFile(localFilePath="/m
392 I0830 08:54:30.784911      27 object_store.go:175] uploadFile(localFilePath="/m
393 I0830 08:54:35.177901      27 object_store.go:175] uploadFile(localFilePath="/m
394 I0830 08:54:35.188108      27 object_store.go:175] uploadFile(localFilePath="/m
395 I0830 08:54:35.200386      27 object_store.go:175] uploadFile(localFilePath="/m
396 I0830 08:54:35.466963      27 launcher_v2.go:151] publish success.

```

Training Model Component:

# Training Model using simple cnn Component

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train\_metrics

Artifact Info

Visualization

Scalar Metrics: train\_metrics

name ↑

value

train\_loss

0.035533

val\_loss

0.000156



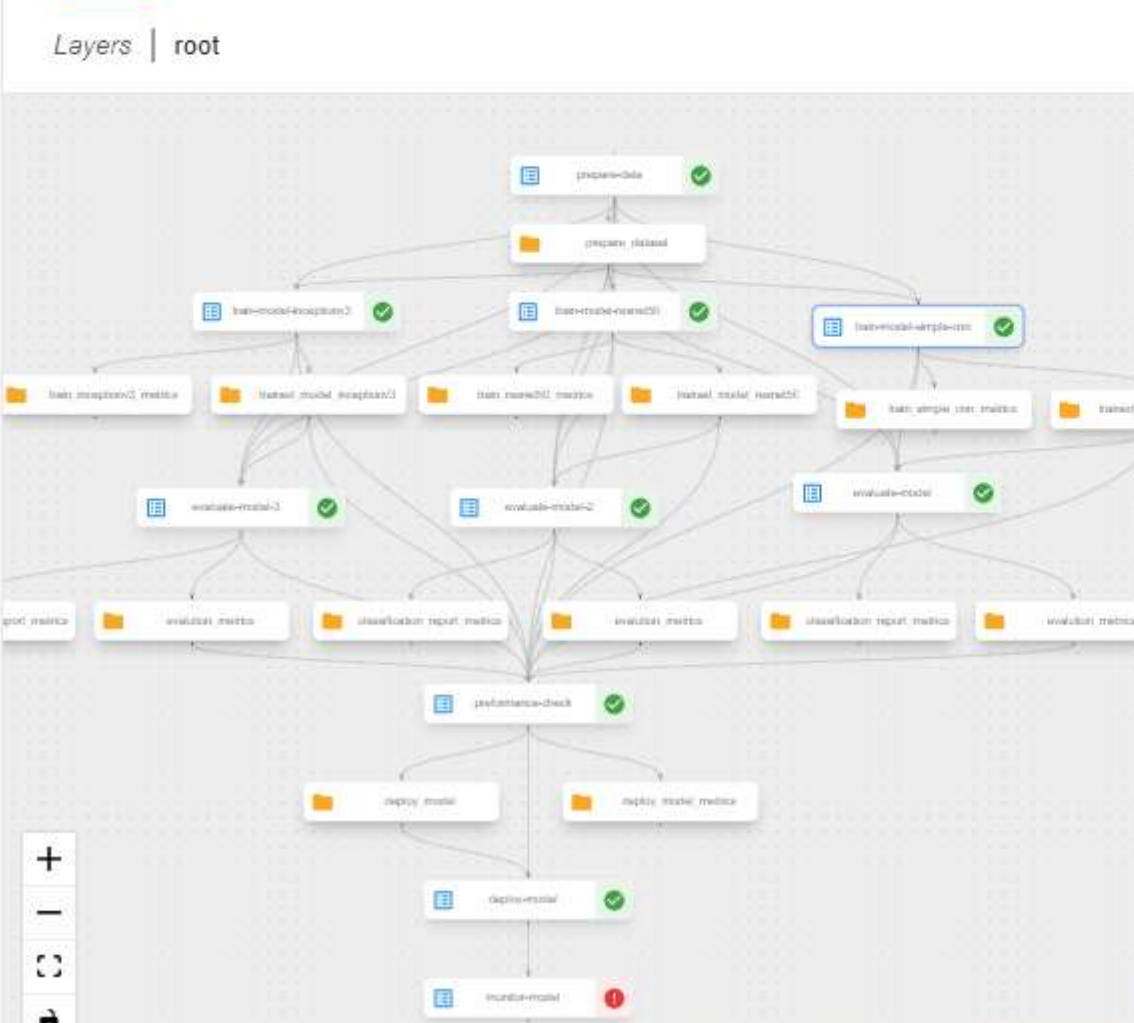
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[×](#) train-model-simple-cnn

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```
795     "uri": "minio://mlpipeline/v2/artifacts/image-classification-pipeline
796     "metadata": {
797       "accuracy": 0.10339999943971634,
798       "val_accuracy": 0.07419999688863754
799     }
800   }
801 ]
802 },
803 "trained_model_simple_cnn": {
804   "artifacts": [
805     {
806       "name": "",
807       "uri": "minio://mlpipeline/v2/artifacts/image-classification-pipeline
808       "metadata": {}
809     }
810   ]
811 }
812 }
813 }
814 W0830 09:15:15.224461 25 launcher_v2.go:446] Local filepath "/minio/mlpipe
815 I0830 09:15:24.964879 25 object_store.go:175] uploadFile(localFilePath="/m
816 I0830 09:15:25.100606 25 object_store.go:175] uploadFile(localFilePath="/m
817 I0830 09:15:25.305401 25 object_store.go:175] uploadFile(localFilePath="/m
818 I0830 09:15:25.510683 25 object_store.go:175] uploadFile(localFilePath="/m
819 I0830 09:15:25.640959 25 object_store.go:175] uploadFile(localFilePath="/m
820 I0830 09:15:25.737932 25 object_store.go:175] uploadFile(localFilePath="/m
821 I0830 09:15:28.639711 25 launcher_v2.go:151] publish success.
822 time="2024-08-30T09:15:29.468Z" level=info msg="sub-process exited" argo=true e
823 time="2024-08-30T09:15:30.345Z" level=info msg="sub-process exited" argo=true e
```

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Scalar Metrics: train\_simple\_cnn\_metrics

name ↑	value
accuracy	0. <a href="#">Sort</a>
val_accuracy	0.0742

# Training Model using ResNet50 Component



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train-model-resnet50

[Input/Output](#) [Task Details](#) [Logs](#)

```
800 I0830 09:38:53.515408 26 launcher_v2.go:705] ExecutorOutput: {
801   "artifacts": {
802     "train_resnet50_metrics": {
803       "artifacts": [
804         {
805           "name": "",
806           "uri": "minio://mlpipeline/v2/artifacts/image-classification-pipeline
807           "metadata": {
808             "accuracy": 0.10209999978542328,
809             "val_accuracy": 0.008500000461935997
810           }
811         }
812       ]
813     },
814     "trained_model_resnet50": {
815       "artifacts": [
816         {
817           "name": "",
818           "uri": "minio://mlpipeline/v2/artifacts/image-classification-pipeline
819           "metadata": {}
820         }
821       ]
822     }
823   }
824 }
825 W0830 09:38:53.554115 26 launcher_v2.go:446] Local filepath "/minio/mlpipe
826 I0830 09:38:53.855077 26 object_store.go:175] uploadFile(localFilePath="/m
827 I0830 09:38:53.881751 26 object_store.go:175] uploadFile(localFilePath="/m
```

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×

train\_resnet50\_metrics

[Artifact Info](#) [Visualization](#)

Scalar Metrics: train\_resnet50\_metrics

name ↑	value
accuracy	0.1021
val_accuracy	0.0085

# Training Model using InceptionV3 Component

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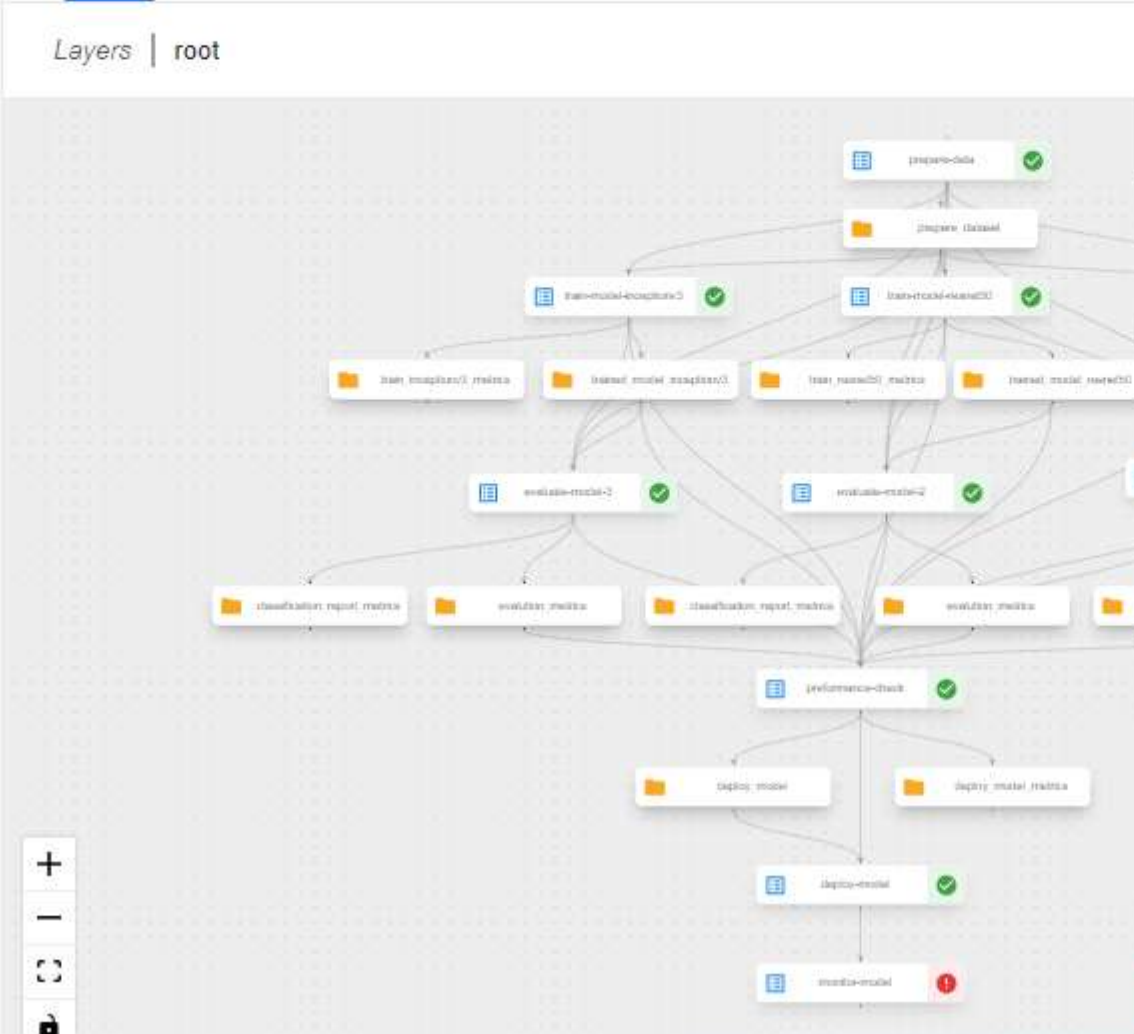
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[←](#) [🔴](#) image-classification-pipeline-with-serving-and-monitoring 2024-08-30T09:40:43.328Z

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[×](#) train-model-inceptionv3

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```
807     "uri": "minio://mlpipeline/v2/artifacts/image-classification-pipeline
808     "metadata": {
809       "accuracy": 0.10042499750852585,
810       "val_accuracy": 0.0608999989926815
811     }
812   }
813 ],
814 },
815 "trained_model_inceptionv3": {
816   "artifacts": [
817     {
818       "name": "",
819       "uri": "minio://mlpipeline/v2/artifacts/image-classification-pipeline
820       "metadata": {}
821     }
822   ]
823 }
824 }
825 }
826 W0830 09:40:39.205742 25 launcher_v2.go:446] Local filepath "/minio/mlpipe
827 I0830 09:40:39.373363 25 object_store.go:175] uploadFile(localFilePath="/m
828 I0830 09:40:39.418066 25 object_store.go:175] uploadFile(localFilePath="/m
829 I0830 09:40:39.496350 25 object_store.go:175] uploadFile(localFilePath="/m
830 I0830 09:40:42.715728 25 object_store.go:175] uploadFile(localFilePath="/m
831 I0830 09:40:42.734084 25 object_store.go:175] uploadFile(localFilePath="/m
832 I0830 09:40:42.748826 25 object_store.go:175] uploadFile(localFilePath="/m
833 I0830 09:40:43.167411 25 launcher_v2.go:151] publish success.
834 time="2024-08-30T09:40:43.328Z" level=info msg="sub-process exited" argo=true e
835 time="2024-08-30T09:40:44.1937" level=info msg="sub-process exited" argo=true e
```



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train\_inceptionv3\_metrics


Artifact Info

Visualization

Scalar Metrics: train\_inceptionv3\_metrics

name ↑	value
accuracy	0.100425
val_accuracy	0.0609

# Evaluating Trained Model Component

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Retry

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evaluate-model

## Input/Output

### Task Details

## Logs

This step corresponds to execution "evaluate-model"

### Input Artifacts

input data

```
minio://mlpipeline/v2/artifacts/image-classification-pipeline-with-serving-and-monitoring/c1f8f6ba-64ee-45ec-80d1-45cec35d472d/prepare-data/prepare-dataset
```

input model

minio://mlpipeline/v2/artifacts/image-classification-pipeline-with-serving-and-monitoring/c1f8f6ba-64ee-45ec-80d1-45cec35d472d/train-model-simple-cnn/trained\_model\_simple\_cnn

## Output Artifacts

## classification report metrics

[minio://mlpipeline/v2/artifacts/image-classification-pipeline-with-serving-a](#)  
[nd-monitoring/c1f8f6ba-64ee-45ec-8](#)

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evaluation\_metrics

[Artifact Info](#) [Visualization](#)

Scalar Metrics: evaluation\_metrics

name ↑	value
f1-score	0.450578
precision	0.498876
recall	0.4647



localhost:8080/#/runs/details/c1f8f6ba-64ee-45ec-80d1-45cec35d472d

☆

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image-classification-pipeline-with-serving-and-monitoring 2024-08-01 14:00:00

Retry

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evaluate-model-2

Input/Output

Task Details

Logs

This step corresponds to execution "evaluate-model-2".

Input Artifacts

input\_model

minio://mlpipeline/v2/artifacts/image-classification-pipeline-with-serving-and-monitoring/c1f8f6ba-64ee-45ec-80d1-45cec35d472d/train-model-resnet50/trained\_model\_resnet50

View All

input\_data

minio://mlpipeline/v2/artifacts/image-classification-pipeline-with-serving-and-monitoring/c1f8f6ba-64ee-45ec-80d1-45cec35d472d/prepare-data/prepare\_dataset

View All

Error in retrieving artifact preview.

Details

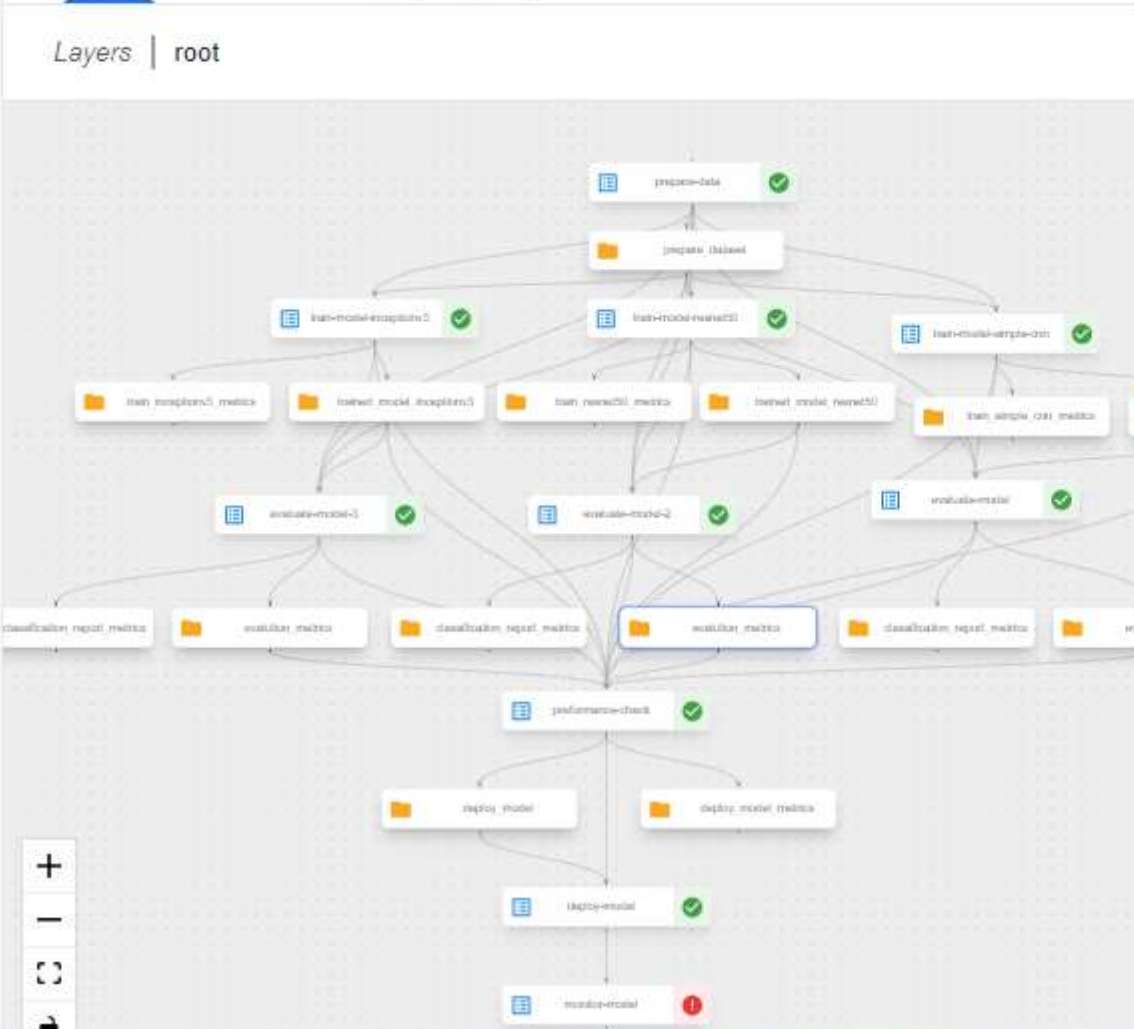
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[✕](#) evaluation\_metrics

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Scalar Metrics: evaluation\_metrics

name ↑	value
f1-score	0.285696
precision	0.40422
recall	0.3235

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evaluate-model-3

Input/Output Task Details Logs

This step corresponds to execution "evaluate-model-3".

Input Artifacts

input\_model [minio://mlpipeline/v2/artifacts/image-classification-pipeline-with-serving-and-monitoring/c1f8f6ba-64ee-45ec-80d1-45cec35d472d/train-model-inceptionv3/trained\\_model\\_inceptionv3](#) View All

input\_data [minio://mlpipeline/v2/artifacts/image-classification-pipeline-with-serving-and-monitoring/c1f8f6ba-64ee-45ec-80d1-45cec35d472d/prepare-data/prepare\\_dataset](#) View All

Output Artifacts

classification\_report\_metrics [minio://mlpipeline/v2/artifacts/image-classification-pipeline-with-serving-and-monitoring/c1f8f6ba-64ee-45ec-80d1-45cec35d472d/evaluation\\_metrics/classification\\_report\\_metrics](#) View All



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evaluation\_metrics

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Scalar Metrics: evaluation\_metrics

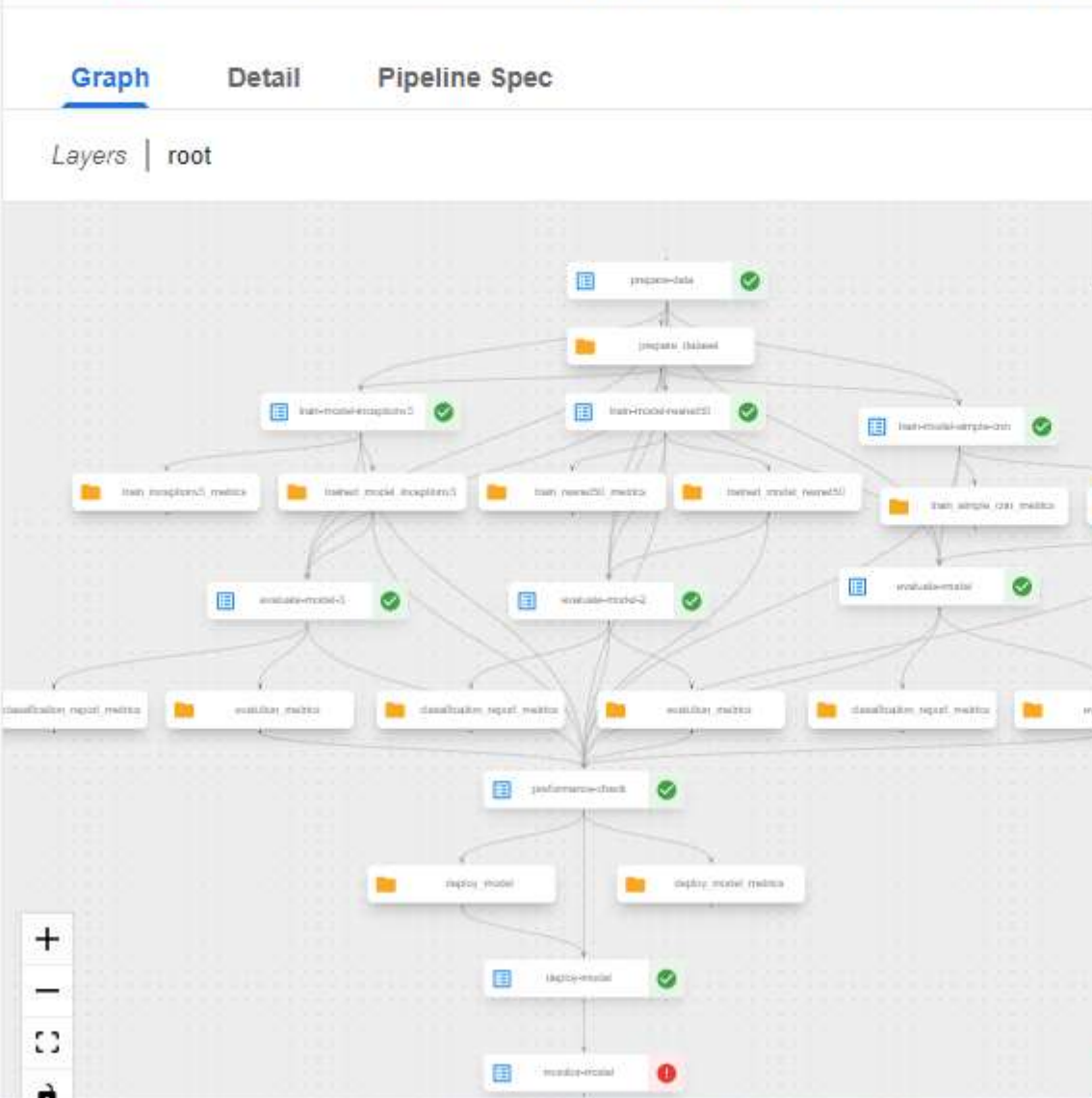
name ↑	value
f1-score	0.429987
precision	0.502595
recall	0.458

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evaluate-model-3


Input/OutputTask DetailsLogs


```
623 525
624 ]
625 }
626 ]
627 }
628 }
629 }
630 ]
631 },
632 "evaluation_metrics": {
633   "artifacts": [
634     {
635       "name": "",
636       "uri": "minio://mlpipeline/v2/artifacts/image-classification-pipeline",
637       "metadata": {
638         "precision": 0.4988756682053193,
639         "recall": 0.4647,
640         "f1-score": 0.4505779419639193
641       }
642     }
643   ]
644 }
645 }
646 }
647 W0830 09:45:20.899636 31 launcher_v2.go:446] Local filepath "/minio/mlpipe
648 W0830 09:45:20.987854 31 launcher_v2.go:446] Local filepath "/minio/mlpipe
649 I0830 09:45:21.139518 31 launcher_v2.go:151] publish success.
650 time="2024-08-30T09:45:21.341Z" level=info msg="sub-process exited" argo=true e
651 time="2024-08-30T09:45:21.926Z" level=info msg="sub-process exited" argo=true e
```


-  Pipelines


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classification\_report\_metrics

Artifact Info

Visualization

Confusion Matrix: classification\_report\_metrics ?

Predicted label

truck	45	194	24	42	10	35
ship	329	160	82	110	27	72
horse	28	9	66	76	205	118
frog	1	2	8	19	1	2



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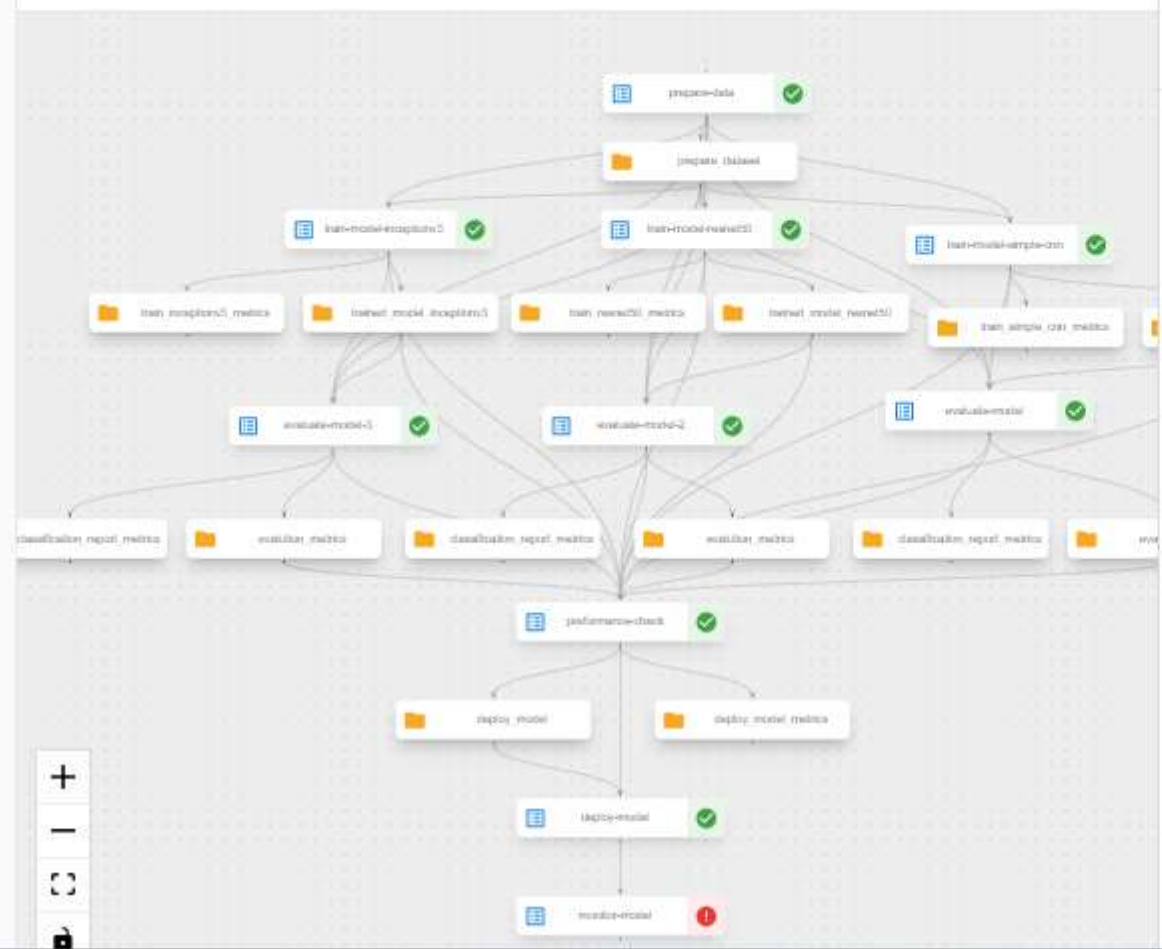
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classification\_report\_metrics

[Artifact Info](#) [Visualization](#)

Confusion Matrix: classification\_report\_metrics ?

Predicted label

truck	9	8	4	1	2	1
ship	358	15	23	6	28	6
horse	23	12	52	15	69	33
frog	16	9	129	50	229	32

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classification\_report\_metrics

Artifact Info

Visualization

Confusion Matrix: classification\_report\_metrics ?

Predicted label

truck	210	431	74	100	47	56
ship	76	9	14	3	7	4
horse	82	23	208	240	270	298
frog	14	10	160	218	209	106



Performance Check for best  
model to deploy Component

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### Pipeline Spec

×

preformance-check

## Logs

```

202     "artifacts": [
203     {
204         "name": "",
205         "uri": "minio://mlpipeline/v2/artifacts/image-classification-pipeline",
206         "metadata": {}
207     }
208     ],
209 },
210 "deploy_model_metrics": {
211     "artifacts": [
212     {
213         "name": "",
214         "uri": "minio://mlpipeline/v2/artifacts/image-classification-pipeline",
215         "metadata": {
216             "display_name": "evaluation_metrics",
217             "f1-score": 0.450578,
218             "precision": 0.498876,
219             "recall": 0.4647
220         }
221     }
222     ],
223 }
224 }
225 }
226 W0830 09:45:58.869406 30 launcher_v2.go:446] Local filepath "/minio/mlpipe
227 W0830 09:45:59.002249 30 launcher_v2.go:446] Local filepath "/minio/mlpipe
228 I0830 09:45:59.142408 30 launcher_v2.go:151] publish success.

```

```
229 time="2024-08-30T09:45:59.674Z" level=info msg="sub-process exited" argo=true e
230 time="2024-08-30T09:46:00.610Z" level=info msg="sub-process exited" argo=true e
```

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```
graph TD; prepare-data[prepare-data] --> prepare-train[prepare-train]; prepare-data --> prepare-test[prepare-test]; prepare-train --> train-model-inceptionv3[train-model-inceptionv3]; prepare-train --> train-model-resnet50[train-model-resnet50]; prepare-test --> train-model-simple-cnn[train-model-simple-cnn]; train-model-inceptionv3 --> evaluate-model-1[evaluate-model-1]; train-model-resnet50 --> evaluate-model-2[evaluate-model-2]; train-model-simple-cnn --> evaluate-model[evaluate-model]; evaluate-model-1 --> classification-report-metrics-1[classification-report-metrics]; evaluate-model-2 --> evaluation-metrics-2[evaluation-metrics]; evaluate-model --> classification-report-metrics-2[classification-report-metrics]; evaluate-model --> evaluation-metrics-1[evaluation-metrics]; classification-report-metrics-1 --> performance-check[performance-check]; classification-report-metrics-2 --> performance-check; evaluation-metrics-1 --> performance-check; evaluation-metrics-2 --> performance-check; performance-check --> deploy-model[deploy-model]; performance-check --> deploy-model-metrics[deploy-model-metrics]; deploy-model --> monitor-model[monitor-model];
```

×

performance-check

[Input/Output](#) [Task Details](#) [Logs](#)

This step corresponds to execution "performance-check".

**Input Artifacts**

evaluation\_simple\_cnn\_metrics (This is an empty file by default)

minio://mlpipeline/v2/artifacts/image-classification-pipeline-with-serving-and-monitoring/c1f8f6ba-64ee-45ec-80d1-45cec35d472d/evaluate-model/evaluation\_metrics [View All](#)

trained\_model\_inceptionv3

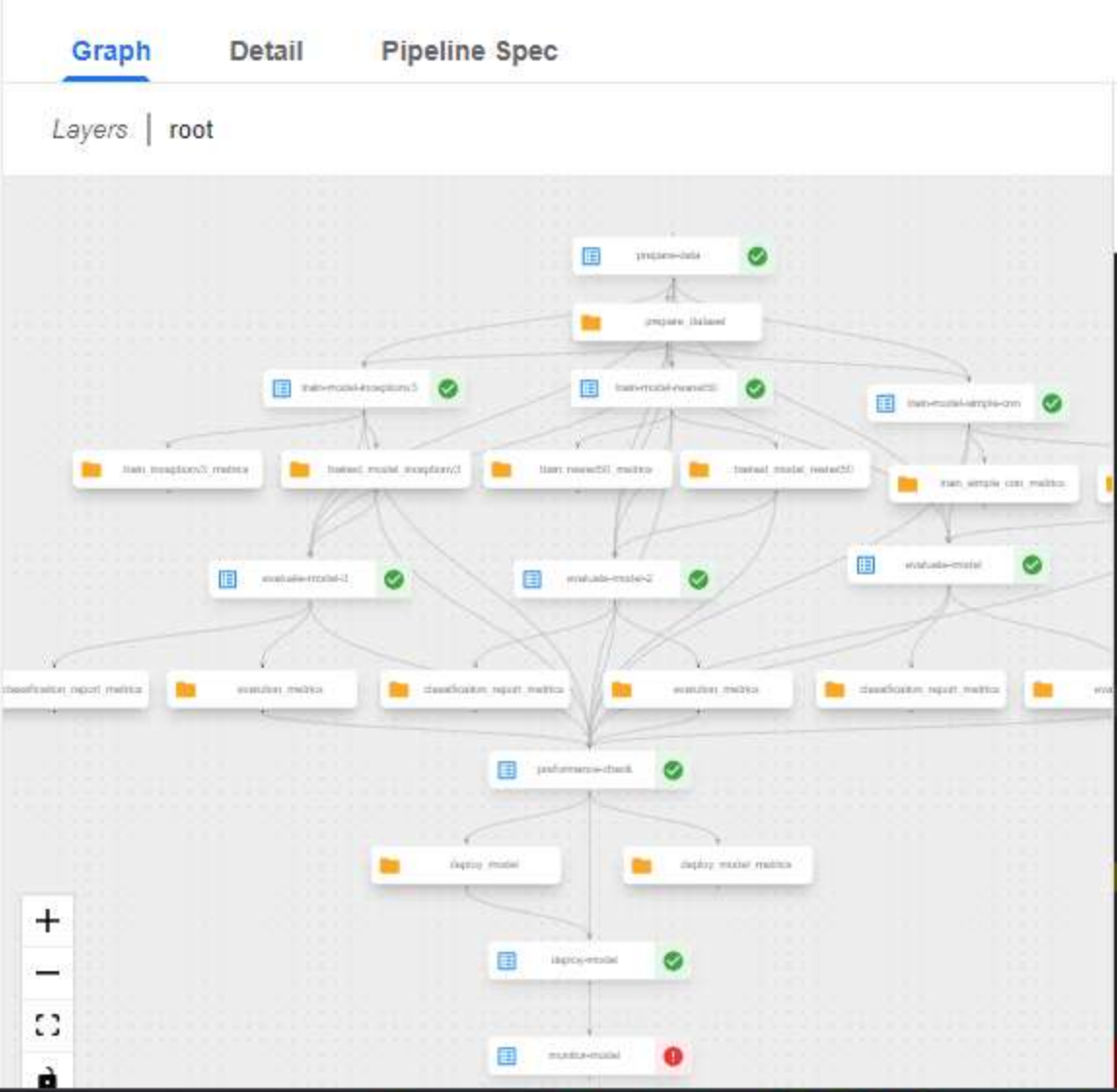
minio://mlpipeline/v2/artifacts/image-classification-pipeline-with-serving-and-monitoring/c1f8f6ba-64ee-45ec-80d1-45cec35d472d/train-model-inceptionv3/trained\_model\_inceptionv3 [View All](#)

trained\_model\_resnet50

minio://mlpipeline/v2/artifacts/image-classification-pipeline-with-serving-and-monitoring/c1f8f6ba-64ee-45ec-80d1-45cec35d472d/train-model-resnet50/trained\_model\_resnet50 [View All](#)

# Deploy model using kserve Component





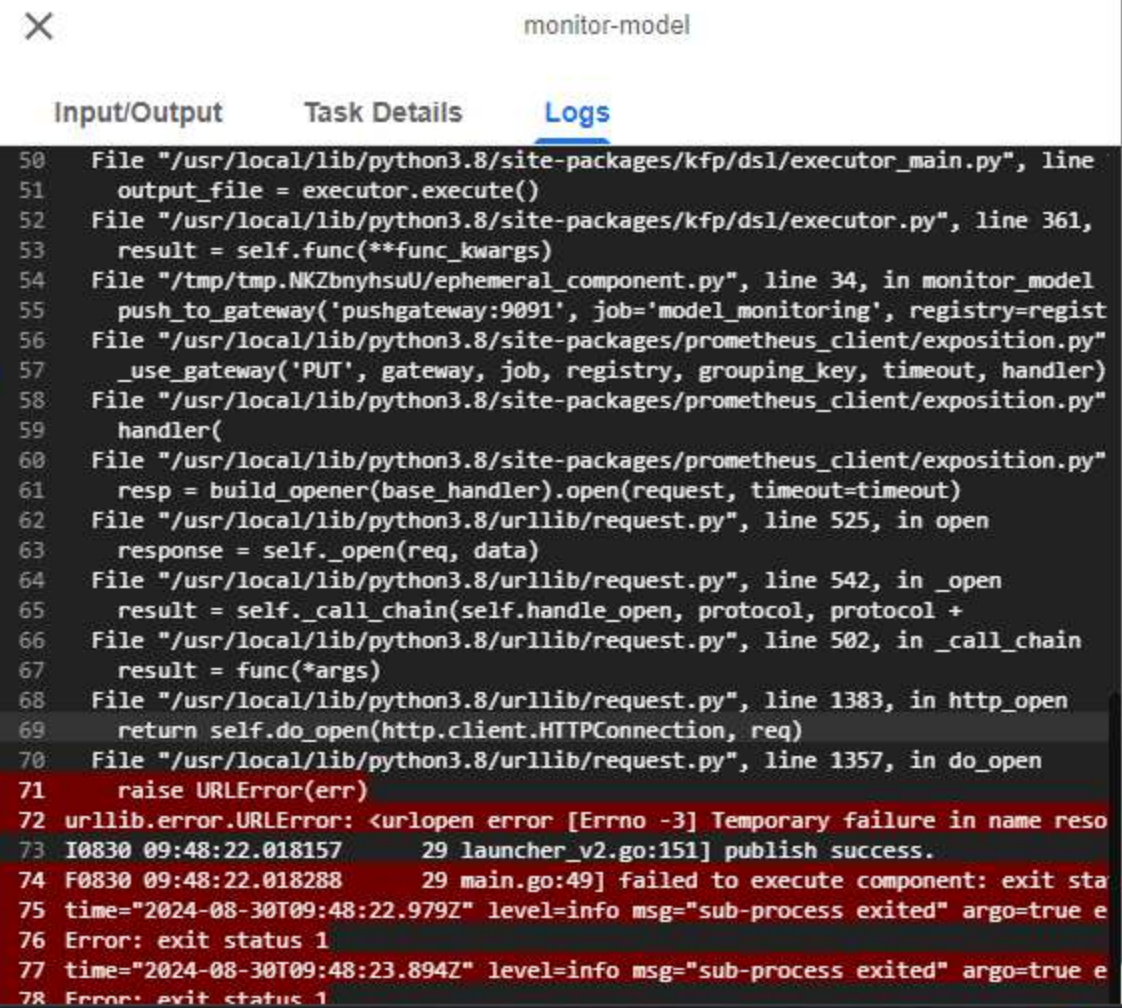
```

X deploy-model

Input/Output Task Details Logs
63         "instanceSchema": ""
64     },
65     "uri": "minio://mlpipeline/v2/artifacts/image-classific
66     "metadata": {
67         "display_name": "deploy_model"
68     }
69 }
70 ]
71 }
72 },
73 "parameterValues": {
74     "kserve_version": "v1beta1",
75     "namespace": "kubeflow",
76     "service_account_name": "sa-minio-kserve",
77     "service_name": "cifar10-service"
78 }
79 },
80 "outputs": {
81     "outputFile": "/tmp/kfp_outputs/output_metadata.json"
82 }
83 }
84 /usr/local/lib/python3.8/runpy.py:111: FutureWarning: KFP will drop support for
85 __import__(pkg_name)
86 Model deployed as an InferenceService: cifar10-service
87 [KFP Executor 2024-08-30 09:47:29,153 INFO]: Wrote executor output file to /tmp
88 I0830 09:47:29.548852      29 launcher_v2.go:705] ExecutorOutput: {}
89 I0830 09:47:29.591768      29 launcher_v2.go:151] publish success.
90 time="2024-08-30T09:47:29.867Z" level=info msg="sub-process exited" argo=true e
91 time="2024-08-30T09:47:30.787Z" level=info msg="sub-process exited" argo=true e

```

# Monitor Deploy Model using Prometheus Component

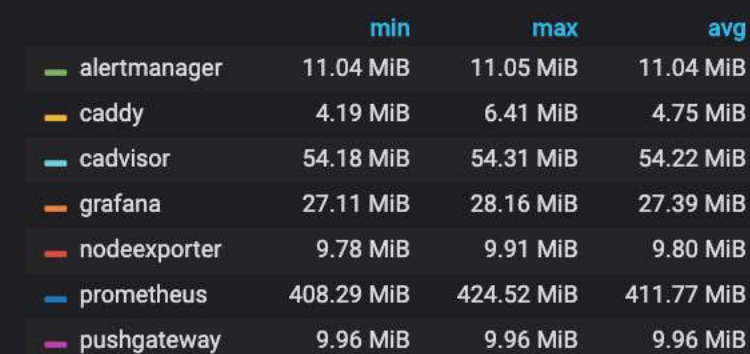
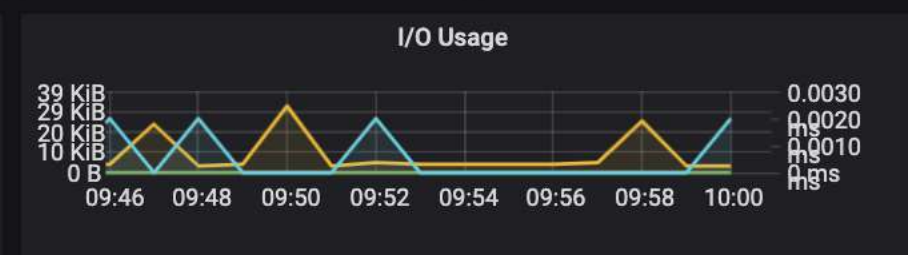




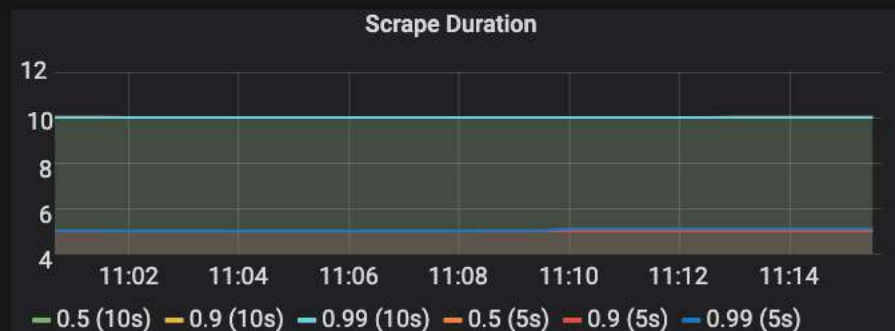
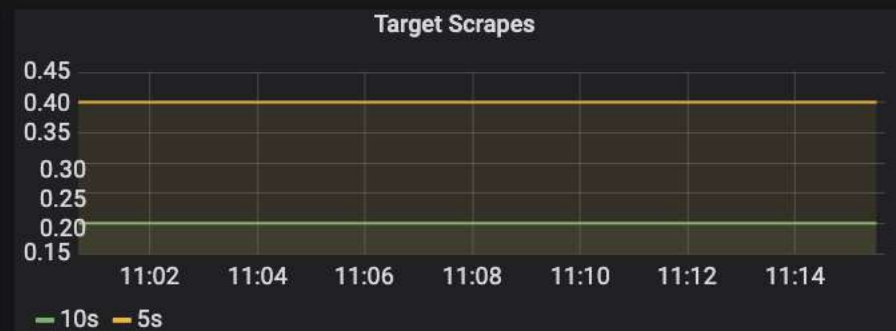
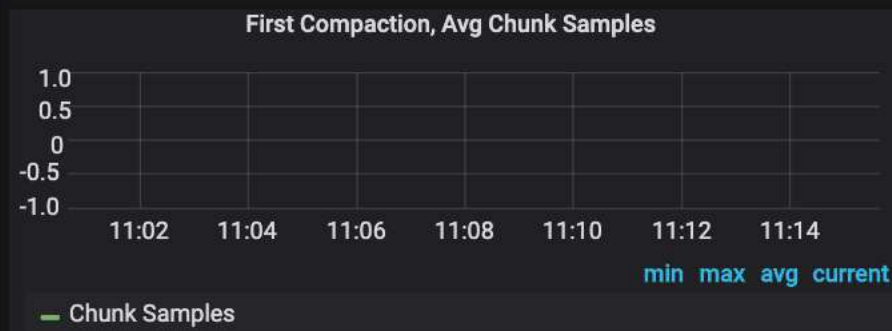
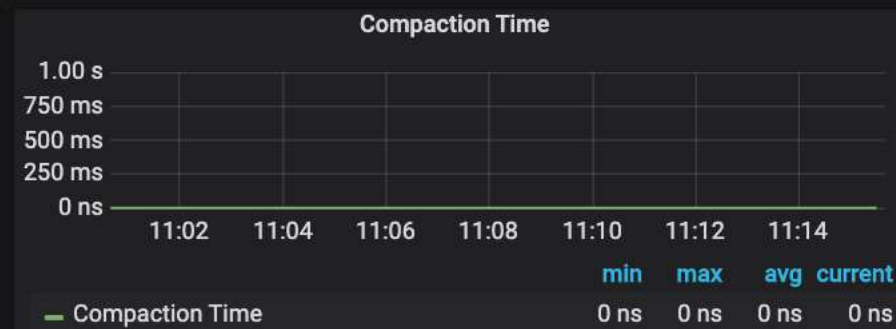
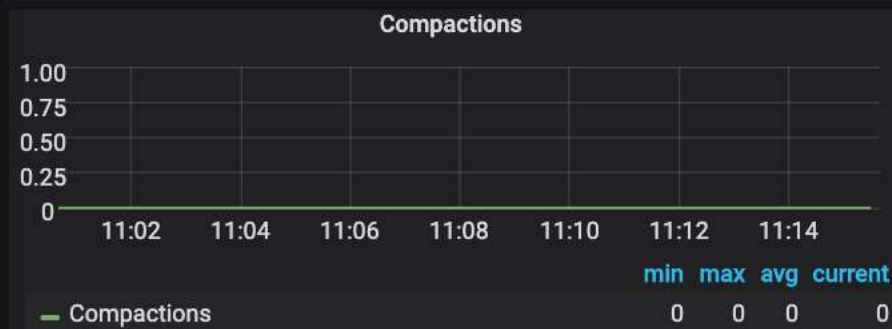
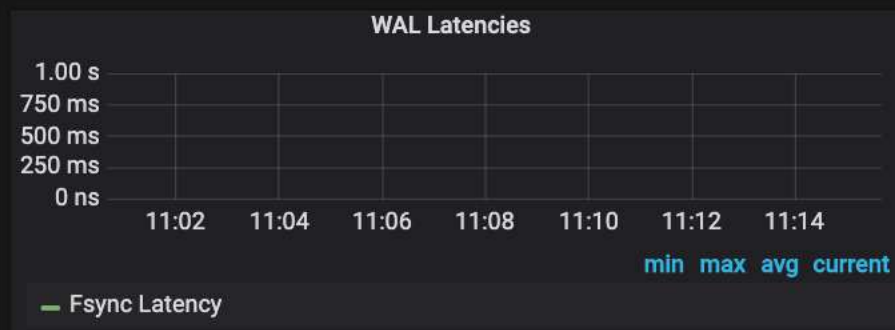
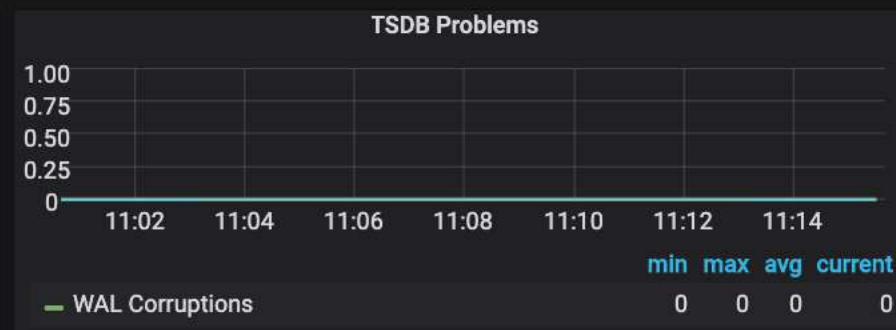
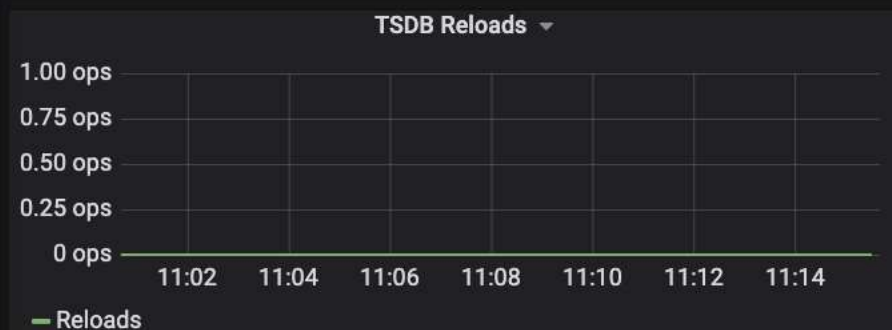
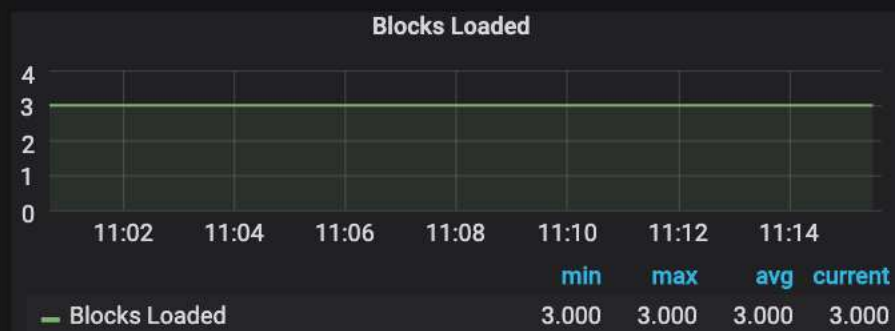
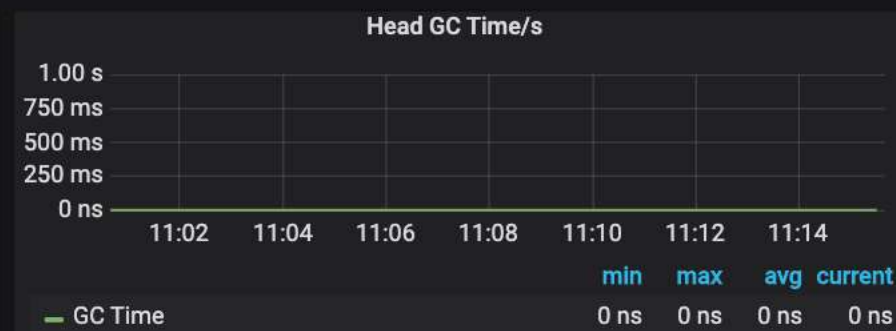
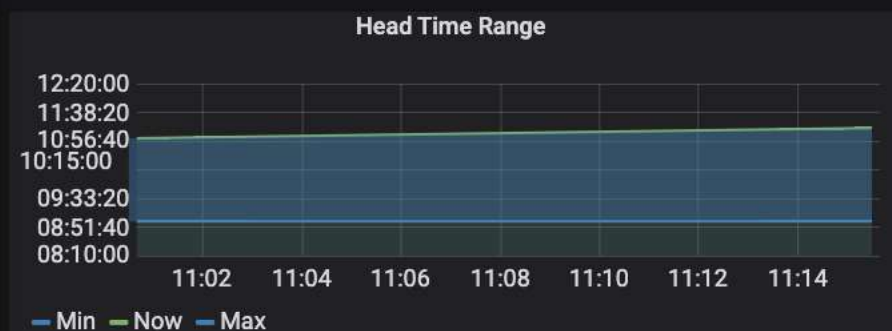
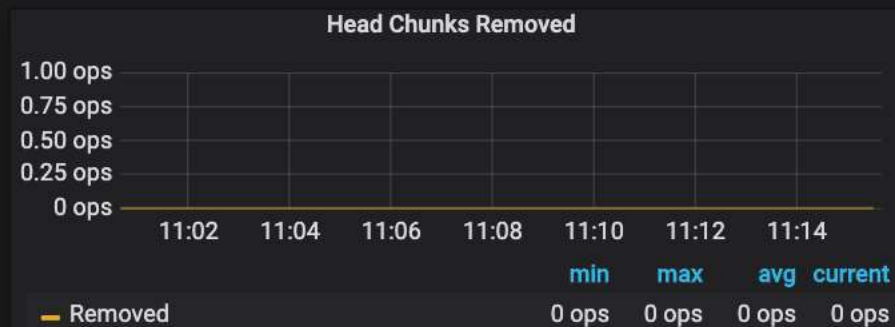
# **Kserve Deployment logs**

```
efaulted container "kserve-container" out of: kserve-container, storage-initializer (init)
024-08-29 00:49:06.845230: I tensorflow_serving/model_servers/server.cc:89] Building single TensorFlow model file config:  model_name: weather-model model_base_
nt/models
024-08-29 00:49:06.847765: I tensorflow_serving/model_servers/server_core.cc:465] Adding/updating models.
024-08-29 00:49:06.847826: I tensorflow_serving/model_servers/server_core.cc:591] (Re-)adding model: weather-model
024-08-29 00:49:06.948834: I tensorflow_serving/core/basic_manager.cc:740] Successfully reserved resources to load servable {name: weather-model version: 1}
024-08-29 00:49:06.948911: I tensorflow_serving/core/loader_harness.cc:66] Approving load for servable version {name: weather-model version: 1}
024-08-29 00:49:06.948928: I tensorflow_serving/core/loader_harness.cc:74] Loading servable version {name: weather-model version: 1}
024-08-29 00:49:06.948988: I external/org_tensorflow/tensorflow/cc/saved_model/reader.cc:38] Reading SavedModel from: /mnt/models/1
024-08-29 00:49:06.961023: I external/org_tensorflow/tensorflow/cc/saved_model/reader.cc:90] Reading meta graph with tags { serve }
024-08-29 00:49:06.961133: I external/org_tensorflow/tensorflow/cc/saved_model/reader.cc:132] Reading SavedModel debug info (if present) from: /mnt/models/1
024-08-29 00:49:06.961453: I external/org_tensorflow/tensorflow/core/platform/cpu_feature_guard.cc:142] This TensorFlow binary is optimized with oneAPI Deep Neu
ork Library (oneDNN) to use the following CPU instructions in performance-critical operations:  AVX2 AVX512F FMA
o enable them in other operations, rebuild TensorFlow with the appropriate compiler flags.
024-08-29 00:49:07.063862: I external/org_tensorflow/tensorflow/cc/saved_model/loader.cc:211] Restoring SavedModel bundle.
024-08-29 00:49:07.229031: I external/org_tensorflow/tensorflow/cc/saved_model/loader.cc:195] Running initialization op on SavedModel bundle at path: /mnt/model
024-08-29 00:49:07.300402: I external/org_tensorflow/tensorflow/cc/saved_model/loader.cc:283] SavedModel load for tags { serve }; Status: success: OK. Took 3514
seconds.
024-08-29 00:49:07.305122: I tensorflow_serving/servables/tensorflow/saved_model_warmup_util.cc:59] No warmup data file found at /mnt/models/1/assets.extra/tf_s
armup_requests
024-08-29 00:49:07.316927: I tensorflow_serving/core/loader_harness.cc:87] Successfully loaded servable version {name: weather-model version: 1}
024-08-29 00:49:07.323486: I tensorflow_serving/model_servers/server_core.cc:486] Finished adding/updating models
024-08-29 00:49:07.323671: I tensorflow_serving/model_servers/server.cc:133] Using InsecureServerCredentials
024-08-29 00:49:07.323691: I tensorflow_serving/model_servers/server.cc:383] Profiler service is enabled
024-08-29 00:49:07.332961: I tensorflow_serving/model_servers/server.cc:409] Running gRPC ModelServer at 0.0.0.0:9000 ...
warn] getaddrinfo: address family for nodename not supported
024-08-29 00:49:07.347938: I tensorflow_serving/model_servers/server.cc:430] Exporting HTTP/REST API at:localhost:8080 ...
evhttp_server.cc : 245] NET_LOG: Entering the event loop ...
```

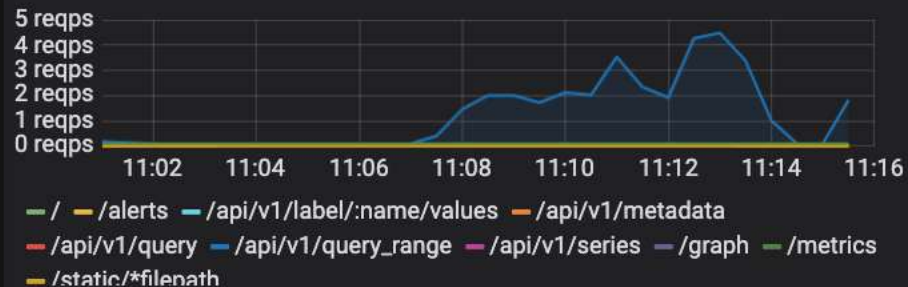
# Prometheus Dashboard



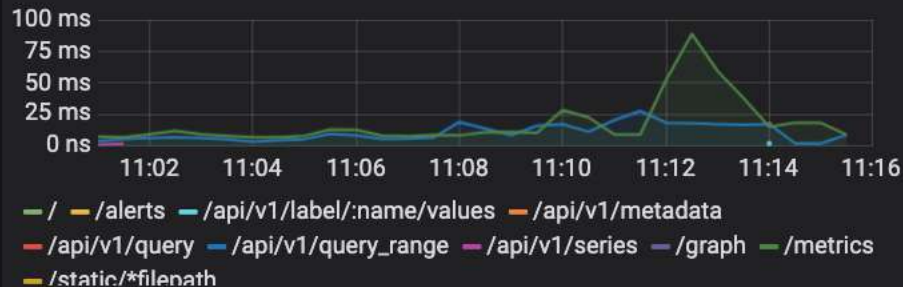




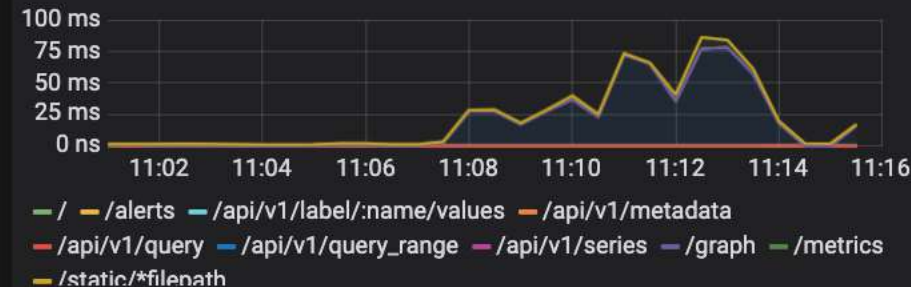
### HTTP requests



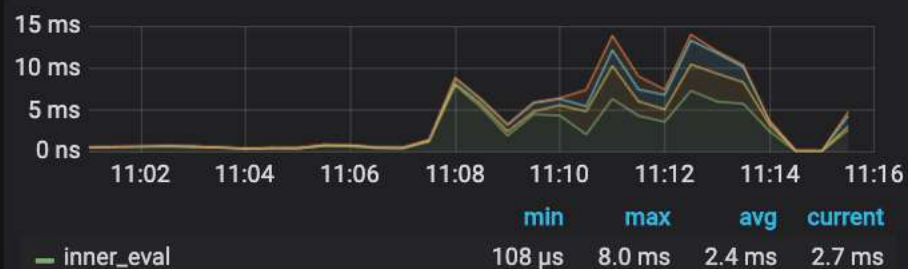
### HTTP request latency



### Time spent in HTTP requests



### Query engine timings



### Rule group evaluation problems



### Evaluation time of rule groups

