

AICamp-Rubrick-Pinakster-CaronaHack

AWS Sagemaker Job Training

Job settings

Job name

AICamp-Rubrick-Pinakster-CaronaHack

ARN

arn:aws:sagemaker:us-east-1:323464508625:training-job/aicamp-rubrick-pinakster-caronahack

Status

Completed

[View history](#)

Creation time

Jul 08, 2020 12:06 UTC

Last modified time

Jul 08, 2020 14:42 UTC

SageMaker metrics time series

Disabled

Training Job Details:

The screenshot displays the AWS SageMaker console interface. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and user information 'Pinaki Basu' in 'N. Virginia' with a 'Support' link. The left sidebar shows the 'Amazon SageMaker' menu with options like 'Dashboard', 'Search', 'Ground Truth', 'Notebook', 'Training', 'Inference', and 'Augmented AI'. The main content area is titled 'AICamp-Rubrick-Pinakster-CaronaHack' and contains a 'Job settings' section. This section lists job details in a table format, including job name, status (Completed), ARN, creation and last modified times, training and billable times, IAM role ARN, and managed spot training savings. Below the job settings is an 'Algorithm' section with a table listing algorithm ARN, instance type (ml.p2.xlarge), additional volume size (100 GB), volume encryption key, training image, instance count (1), maximum runtime (86400s), input mode (File), and managed spot training status (Disabled). The bottom of the console shows a footer with 'Feedback', 'English (US)', and copyright information for 2008-2020 Amazon Web Services, Inc.

Job settings			
Job name	Status	SageMaker metrics time series	IAM role ARN
AICamp-Rubrick-Pinakster-CaronaHack	Completed	Disabled	arn:aws:iam::323464508625:role/service-role/AmazonSageMaker-ExecutionRole-20200622T185616
ARN	View history	Training time (seconds)	
arn:aws:sagemaker:us-east-1:323464508625:training-job/aicamp-rubrick-pinakster-caronahack		9176	
	Creation time	Billable time (seconds)	
	Jul 08, 2020 12:06 UTC	9176	
	Last modified time	Managed spot training savings	
	Jul 08, 2020 14:42 UTC	0%	
		Tuning job source/parent	
		-	

Algorithm			
Algorithm ARN	Instance type	Additional volume size (GB)	Volume encryption key
-	ml.p2.xlarge	100	-
Training image	Instance count	Maximum runtime (s)	
811284229777.dkr.ecr.us-east-1.amazonaws.com/image-classification:1	1	86400	
Input mode		Maximum wait time for managed spot training(s)	
File		-	
		Managed spot training	
		Disabled	

Hyperparameters for the Training:

The screenshot shows the AWS SageMaker console interface. The left sidebar contains a navigation menu with categories like Ground Truth, Notebook, Training, Inference, and Augmented AI. The 'Training' section is expanded, showing 'Algorithms', 'Training jobs', and 'Hyperparameter tuning jobs'. The main content area displays the 'Hyperparameters' for a specific training job, listing various keys and their corresponding values. Below the hyperparameters, there is a 'Network' section indicating that no custom VPC settings are applied.

Key	Value
beta_1	0.9
beta_2	0.999
checkpoint_frequency	1
early_stopping	false
early_stopping_min_epochs	10
early_stopping_patience	5
early_stopping_tolerance	0.0
epochs	30
eps	1e-8
gamma	0.9
image_shape	3,224,224
learning_rate	0.1
lr_scheduler_factor	0.1
mini_batch_size	32
momentum	0.9
multi_label	0
num_classes	7
num_layers	152
num_training_samples	5286
optimizer	sgd
precision_dtype	float32
use_pretrained_model	1
use_weighted_loss	0
weight_decay	0.0001

Network

No custom VPC settings applied.

© 2008 - 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use

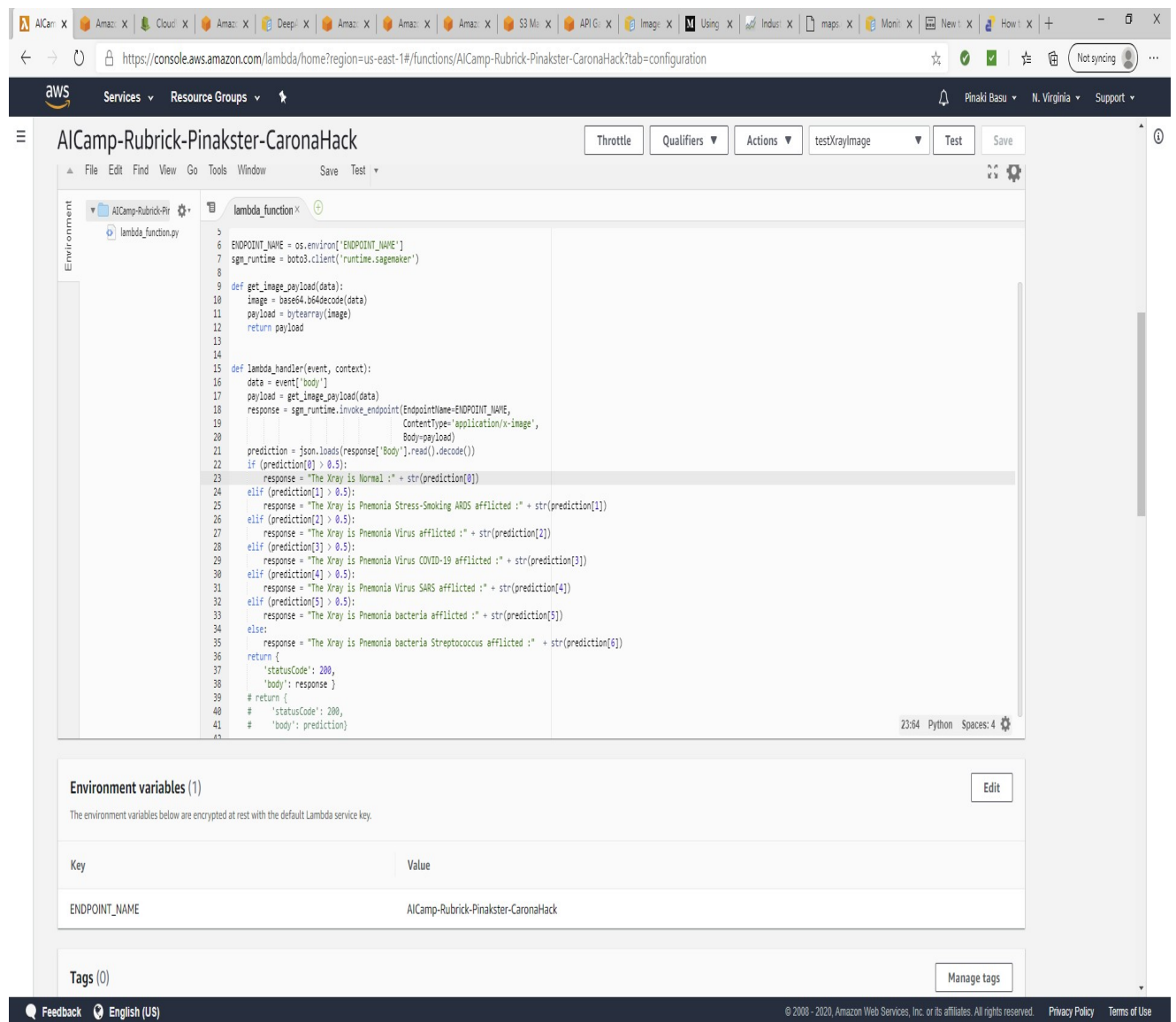
The screenshot displays the AWS CloudWatch console interface. On the left sidebar, navigation links include CloudWatch, Dashboards, Alarms, Billing, Logs, Log groups, Insights, Metrics (highlighted), Events, Rules, Event Buses, ServiceLens, Service Map, Traces, Container Insights, Resources, Performance Monitoring, Synthetics, Canaries, Contributor Insights, Settings, and Favorites.

The main area shows a line graph titled "Untitled graph". The Y-axis is labeled "No unit" and ranges from 0.231 to 0.4. The X-axis represents time, spanning from 11:45 to 14:45. A single data series named "validation accuracy" is plotted as a blue line, showing significant fluctuations between approximately 0.23 and 0.4.

Below the graph, the "All metrics" tab is selected. It lists metrics for the resource "AI-Camp-Rubrick-Pinakster-CoronaHack" under the namespace "N. Virginia". The search path is "/aws:sagemaker/TrainingJobs > TrainingJobName".

Metric Name
train.accuracy.epoch
train.accuracy
validation.accuracy.epoch
validation.accuracy

Lambda Function:



The screenshot displays the AWS Lambda console for the function 'AICamp-Rubrick-Pinakster-CaronaHack'. The function is configured with the 'testXrayImage' trigger and is written in Python. The code defines a lambda handler that takes an event, extracts the image payload, and returns a prediction based on a threshold.

```
5
6 ENDPOINT_NAME = os.environ['ENDPOINT_NAME']
7 sgm_runtime = boto3.client('runtime.sagemaker')
8
9 def get_image_payload(data):
10     image = base64.b64decode(data)
11     payload = bytearray(image)
12     return payload
13
14
15 def lambda_handler(event, context):
16     data = event['body']
17     payload = get_image_payload(data)
18     response = sgm_runtime.invoke_endpoint(EndpointName=ENDPOINT_NAME,
19                                           ContentType='application/x-image',
20                                           Body=payload)
21     prediction = json.loads(response['Body'].read().decode())
22     if (prediction[0] > 0.5):
23         response = "The Xray is Normal : " + str(prediction[0])
24     elif (prediction[1] > 0.5):
25         response = "The Xray is Pneumonia Stress-Smoking ARDS afflicted : " + str(prediction[1])
26     elif (prediction[2] > 0.5):
27         response = "The Xray is Pneumonia Virus afflicted : " + str(prediction[2])
28     elif (prediction[3] > 0.5):
29         response = "The Xray is Pneumonia Virus COVID-19 afflicted : " + str(prediction[3])
30     elif (prediction[4] > 0.5):
31         response = "The Xray is Pneumonia Virus SARS afflicted : " + str(prediction[4])
32     elif (prediction[5] > 0.5):
33         response = "The Xray is Pneumonia bacteria afflicted : " + str(prediction[5])
34     else:
35         response = "The Xray is Pneumonia bacteria Streptococcus afflicted : " + str(prediction[6])
36     return {
37         'statusCode': 200,
38         'body': response
39     }
40 # 'statusCode': 200,
41 # 'body': prediction
```

Environment variables (1)

Key	Value
ENDPOINT_NAME	AICamp-Rubrick-Pinakster-CaronaHack

Tags (0)

AWS API Gateway URL:

<https://tv6niw9khh.execute-api.us-east-1.amazonaws.com/AICamp-Rubrick-Pinakster-CaronaHack/aicamp-rubrick-pinakster-caronahack>

A Sample Test for a XRay Image:

Postman

File Edit View Help

New Import Runner

eLogicDecisionWorkspace Invite

No Environment

Filter

History Collections APIs

Save Responses Clear all

Today

Yesterday

June 30

Untitled Request

POST https://tv6niw9khh.execute-api-us-east-1.amazonaws.com/AICamp-Rubrick-Pinkster-CaronaHack/aicamp-rubrick-pinkster-caronahack

Send Save

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies Code

none form-data x-www-form-urlencoded raw binary GraphQL JSON

```
1 {
2   "body": " /j5/4AAQ5K2Jg8ABQAAQ4BA40/2u6DAAg6BgCGgBwC/ICQgX0QDAsLOBs5u6UHRoFhhB8Bhg/IC4nIC1sIwKCDpDAxkQ0Qh/cSP7gyPC4nIDL/wALCA4B8WABARE/8QhWA4AQUBAQEBQEAQAAAAAAAEChQF8gcTCQq/
8Qh4+AAAgED4tEaWUF8AQ4AAFAQIDAAQRB81MUEEE1PhBj7vF0KkaE1I0KwAS58FAH2JyggekFhcYGO8J1ic0SoWNTY30XG0Q8RFKdISUpTVFVWZnZmMkZiZnaE1qc3R1end4exqDnIvGh41j1pKT1JWMI51ZmqKj5pKlmp61porKztUu2z715usLDmVXG8j3y1t1100U19J22uH4
+T15uf0der78vP89Fb3+Ph6/9oKACAEBAAM/APtut0HTuKebTulKc8TgQwpFKtXK8mUk8540aUj3o7FhTgTlKx5Ec8bgpcSGITHHfHkMda09HagJfJ1FGKTB/Cg2OPSK16u0a0lnoxS5S0a0zRtpQKc8bgcVt5
+na1Rf1jRTJ4Cn684C40Dn3qFAHUsY55qV4E47U86J1pF6cCpKUSdp07KZ5Z8/+uP64VPC81nhcVtB6M0XV5769KX58FV1KgnrUQ0aQpwe5R7118c8a1ErdY586eG7H0Pek7EU8j8ox1j589KX+18c
+1Pkr0pGFrqgP8q4749VE4yF8UHX0J31BubhyaUt8ncGcUjLHr1nLT3prKAM+1WKG07e1N0cHBFQ0do8V8gs2vSYx6CjJwU7J6eagCzh
+Vv2y3lQ58J3j3F8Kt5ubAE500XRU488x9a2Xg8c44g2R2GpvaQVlQQc4gE7E1hYK5JIEHJgTWS564H3kh2nm01X016851P104qVh
+7v2y3l44649p9f5puaee7zu1Qy3h5AM3vUHF1G1QWp6j3pS896idnduaQUL1eh59c5e868mE8pduOKNtU9hUJ82MkUo0tH2Vap5t8XJ6Q5e8TShF68g4xQ0+u0d5S6LJ4e1B6ZFP1o9jKv8+FTTC0wK1cx+MIDV4pFT1Dg66jumbW
FMMLDhymoc5laT7v6401V2jULx9m03Vt80ebzC6kHoc1QcF001dp800X5jmg131nuWYMMuRU1uPtUwUk2V/+cyT0e5ev940u74apw685ee8TwkcbTgP9QJ5r0yH4H48H4c878NUX2mQWVbopdFUJH6tgZAcCZ/LvU7J3Tb7e77P4/448P61s7J3uFvZgJ
+M2j34YngJf5c0am6japP1E1r4g5x71be1Q5k5d6/6omD0a0mKx5Sj7uTQ8n0JualuVt8T1p5vQJ3nT506Jz1c08+8T0YMM1DcT+V60UUsJ3PMLB0K32p0pQKcF4+80HMP5SAda0a14457Ud01F1Q6CngWp1p1Zuets4c1j0UlyFengCv0fV686csg8eChY/
A6p0rb4Q2U1ZghVWV1Bn8T1Xj+clmXowHep24cVp654P1p6FkE+Hkx5tWpzzzTH0Kets500a066G0Q78UJ89g+u59e1PCS4H0ngJ19dVem33p/0Hf4AF46ng6u5JfU4HMo1701EYp4YKQ2wfyqTjxrc5YPR8mnbpCA09K40BTc257UuEQCo7yuSh51E1j6jtcQgVXJ
+7KJ36K12egF0agYEC1j5Tng3ph7wCPV8Q7ueH9KCPPP5mgUg59cj4u6165J16B8PpXTrmFTVPQJ5Pch/w4geAq5QadHvUOKqFJ/T1rUVAJoanEQIGaHacm7Wu3Jqfnciojz0K0KJ6/
WoyP35qLByK8K9aCe1PC2qRux7806Ccu0128U3B7UFch8FCol2mg09KVOmgscFhQV0Cmg3k8v1+L5wPrZppTa+1N2HkA134+1N1BPuU5VogP5KX888/w8r0GHapp446U3Bk7c0M38m7ccuH1645SeopACunFFFA6j8H4p32N5F0n2G8y2cUQ8y8gU0+/
e18P3gguP1p81p464p9qFo+10H5Cne3rKx+Vh/ADSP+40+utr/ADKteUmgUtsH2L28+VvkeTnf+zu3H0c4vjV0Ktocs/+EnmICE3/w6Jr728H//dof16
+885454xmL2nbCvU2UoXG6U0K7vXsGle1L5o2i2Ja05Ec838P5gqKT2S400oLZp1p5jPakCn8pG8pH0pXFF0leakHFKo/+tThnG1XoeLgdxvTgha44inJ76Up/g/G6ETn2wq+uak88mp1j5c8VKF6enU57DUkLp4u6Dn8pVQ2
+1TKW4Pz4A4e5So8np366TgV8v11Hmg4Per7Xn8K18r553p2PacP100V58gJNk4K1468/dM08IHMITg13A057FhTh1Py2UvU06AgBjQU0HPap500oP6G5Pahn68V0Kch92AKJ8yU8HmSnoInkgVqFum784KxH4j5Ecep8VhY5Q5cm146UFTn8t5/
zpk1SHEKjEY2zTX1z8u61XXX83j821BqSP69KrsqP6Gj24H41ABPz2H4V81p84qouTmP6A00778r1hJ8p0De1R6854pPKftm+Q66n8vCAM2U5Z/
OS81neVmo28H0W3C3j3q1u00bLn3H1pL7U7h5u0mJgah7PwKQ2940e0e9KVTxx3684ewpCFgaUS0V11A76U7n112403p0d7+188UeDe1G32k08e48b29qK+15we2aT0k2YdguaJai0y05Cg88U0+V89+H1Z/Sk1683H5HMK16UZF7toz5Y98U/
r5Y2zCcx748H061XV2fU7Mlc8rVd08111gX0P80p8CeeUw/KXg9Kc8KTx1p6+9PAdR1ndK9rFe868eH4H4eF2PE2M0a2s2u6K1ba1zthvvpzDfj3H4pR82380T+PcczF4D0R0565aJ1ntF7n1/eKS2z2CH7F21KxkY81ja8en1u69uL+uZLq
+un32En3n68G4a4A4G8Y56U4L3j3p8m780L1Lw5p6jPFLj34Yp8w0VjG6aQL/7SE8pp0nnr5F3hetUP88J13pu2Kc93RtYHrTcPa14xx3FpGm83HFF0V5Dz+PpGK1u5H4m8HkC1HEJ4J1DgEcE1WVdaR07UBe1PVTmH4pH4ue90A1j68d0an2g1jxUka5/
Cwnr68R14u34pW2FTW6F0C80c08T28H81mPHK80V3p57Cp9Q10V0wU7RuyAe3mhJ8Q1U6u8u64I0R19406C0C012EtGkTHPSmKkKxxn12j1o4W1j1p8g8K1zIcq2UJ9J51u85uN12topnj/dkVg074zIKXMy28f9p+53d8eP8pP7qV9V9G9+1wzI/Bg/
+89uWlAgJ35SP5jH0c0nVck512DkU3a8FekQ88umJg1j3jnn1dPhm1kVWEY+88cJePrJrTQDQK5q5F5pH0DLCC012EtGkTHPSmKkKxxn12j1o4W1j1p8g8K1zIcq2UJ9J51u85uN12topnj/dkVg074zIKXMy28f9p+53d8eP8pP7qV9V9G9+1wzI/Bg/
```

Body Cookies Headers (7) Test Results

Pretty Raw Preview Visualize JSON

```
1 {
2   "statusCode": 200,
3   "body": "The Xray is Pneumonia bacteria afflicted :1.8"
4 }
```

Status: 200 OK Time: 668 ms Size: 366 B Save Response

Bootcamp Build Browse