DataSpires Masterclass for GSMA Innovation Fund Grantees

Title: Accessing and Scaling AI Compute for Innovation Fund Projects

Host: DataSpires
Audience: GSMA Innovation Fund grantees and alumni working on AI/ML projects
Duration: 60 minutes
Format: Live masterclass with demonstration + Q&A (recorded for distribution)

Overview

This masterclass introduces **DataSpires' compute infrastructure and tools for AI development**, designed to help innovators efficiently access GPUs, fractional access to compute without context switching, run inference workloads, manage jobs at scale, and commercialise AI products across Africa and global south.

The session will provide both **practical guidance on preparing AI workloads** and a **live demonstration of DataSpires' platform**, including its research notebook environment and job-submission tools for running compute workloads.

Participants will learn how to:

- Prepare datasets and workloads for GPU environments
- Select appropriate compute resources for their use case
- Submit and manage batch jobs programmatically via the AfriLink SDK
- Deploy and query models through the DataSpires Inference Engine
- Monitor workloads, manage costs, and retrieve outputs efficiently
- Reduce failed runs and optimise GPU usage

The masterclass will also introduce DataSpires' **upcoming marketplace for African APIs and datasets**, aimed at enabling innovators to discover, test, and commercialize digital assets.

The session will be recorded and shared with the broader GSMA Innovation Fund portfolio.

Masterclass Agenda

1. Welcome and Context (5 minutes)

- Introduction to DataSpires and the African compute landscape
- Overview of the session and what participants will take away

2. Best Practices for AI Workloads (15 minutes)

- Preparing datasets for AI training, fine-tuning and inference
- Choosing the right GPU resources for your workload type
- Managing runtime, memory, and compute costs

- Structuring jobs for batch submission via the AfriLink SDK
- Reducing training failures and improving experiment efficiency

3. DataSpires Platform Overview (10 minutes)

Introduction to the DataSpires compute ecosystem:

- DataSpires Notebooks — GPU-backed research environment (V100 GPUs)
- AfriLink SDK — programmatic batch job submission, queue management, and output retrieval
- DataSpires Inference Engine — deploy and serve AI models over African infrastructure; built for startup production use cases
- Overview of authentication, job queues, and monitoring tools

4. Live Demonstration (15 minutes)

Walkthrough of a demo notebook showing:

- Authenticating with the platform via AfriLink SDK
- Submitting a batch compute workload programmatically
- Deploying a model endpoint on the DataSpires Inference Engine
- Querying the inference endpoint and interpreting outputs
- Monitoring jobs, managing GPU allocations, and retrieving results

5. Looking Ahead: AI Marketplace (5 minutes)

- Vision for a marketplace of **African APIs and datasets**
- Sandbox environments for testing and benchmarking
- Pay-for-consumption access models

6. Q&A and Discussion (10 minutes)

Open discussion with grantees on:

- AI compute and inference needs across Innovation Fund projects
- Batch workload patterns and AfriLink SDK integration questions
- Opportunities for collaboration and early access to the Inference Engine