Summary (Draft v0.0) of Blueprint Workshop:

Fast Machine Learning and Inference

September 10–11, 2019
Fermilab
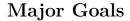**Meeting URL: https://indico.cern.ch/event/822126**

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Major Goals

- Review the status of the Analysis Systems (AS) milestones and deliverables to inform the needs for a collaborative development and testing platform.

- Develop the Scalable Systems Laboratory (SSL) architecture and plans, using AS R&D activities as specific examples.

- Develop requirements on SSL to support the AS area, particularly the prototyping, benchmarking and scaling of AS deliverables toward production deployment.

- Increase the visibility of SSL and AS beyond IRIS-HEP to facilitate partnerships with organizations that might provide software and computing resources toward these objectives.

- Get informed on latest developments in open source technologies and methods important for the success of the SSL and AS R&D areas of the Institute.

Key Outcomes

- Communication of the AS area plans leading to a set of requirements to SSL team.

- Kubernetes identified as a planned *common denominator* technology for the SSL, increasing our innovation capability through flexible infrastructure.

- Plans for a multi-site SSL *substrate project* that will federate SSL contributions from multiple resource providers (institutes and public cloud), offering the AS area a flexible platform for service deployment at scales needed to test the viability of system designs.

- Productive engagement of the AS/SSL team with representatives from NCSA, SDSC, NYU Research Computing, industry & cloud providers (Google, Redhat), generating actions and informing Year 2 planning of IRIS-HEP.

- A vision for an SSL that serves as an innovation space for AS developers and a testbed to prototype next generation infrastructure patterns for future HEP computing environments.

About the Blueprint Activity: Designed to inform the development and evolution of the Institute's strategic vision. At its core, a series of workshops that bring together IRIS-HEP team members, key stakeholders and domain experts from disciplines of importance to the Institute's mission.

I Overview

Together with the ...

A Revision History

- Version 0.0
  - Initial version