Shape Inference

- Improved at operator level:
    - QuantizeLinear
    - Transpose
    - ConstantOfShape
    - Expand
    - Gather and Shape
- InferShapes extended to expose result of data propagation
- Shape inference for local functions added in Release 1.11.0 and further enhanced in the Latest 1.12.0 release.

Node Test Cases

- Node test case generation are now deterministic and flexible
  - since_version is used by default
  - users can choose an opset version
- All test cases are updated with the default opset version.
- As a result of this deterministic measure, we are able to validate data generation in CI pipelines.

CI Pipeline and Packaging

- Linux release pipeline upgraded to manylinux2014
- Dropped support for x86 32bit Linux
- Release packages now include Python 3.10
- No longer produce Python 3.6 packages

New Utilities

- **Model composer** to help with creating and combining models out of several graphs or models

- FunctionBuilder to help construct function ops

Many Miscellaneous Improvements

- Initializer decoupled from input

- Version converter becomes more stable with multiple bug fixes

- Python code modernized with type annotation

- Parser improved to support richer gramma

- Shape inference becomes much reliable

- Tons of bug fixes and document updates

- And more...

What Next?

- Better support for quarterly releases
    - Early detection of breaking changes
    - Automatic integration test with onnxruntime

- Continue to improve shape inference

- Provide support for other SIGs

Please Get Involved!

Github: PRs, Issues, and Discussions

Slack channel: https://slack.lfai.foundation and join onnx-archinfra

Monthly SIG meetings (see slack channel for announcements)

Thanks for coming!!!