Python Packaging – AMD Perspective

- AMD objective
  - Create Python distributions of AMD GPU software, let community build projects with clear ways to depend on these
- Challenges
  - Python packaging ecosystem not mature for handling native dependencies
  - Need first-class support for platform-specific dependencies in Python packaging ecosystem that do not rely on OS-specific packaging (possibly using ideas from Conda and Nix)
- Things that work well
  - Manylinux has been a fantastic investment
- Areas for improvement
  - Inability to encode symlinks into bdists
  - Reliance on ZIP as archive format leads to sub-optimal compression of GPU and development libraries
  - No hierarchy or environment specific selection of default "extras" limits usefulness of default "pip install"
  - Currently no ability for shared library dependencies to span bdist boundaries with standard hooks
- Goals for improvement
  - Provide sufficient stimulus to overcome historic lack of action on potentially helpful ideas
- AMD goals for contributing to WheelNext
  - Establish a group with shared goals and shared strategy and execution capacity to work with the community

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together we advance_

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