Python Based Naval Architecture Tools (PyNAT):

Computes…

- Trimmed Hydrostatics
- Cross curves of stability (KN Curves)
- GZ curve at given Load cases

Supports…

- Only Symmetric Hull forms
- Chine hulls, (sections with knuckle points)
- Sections with Discontinuity

Open Source…

- The python scripts are available in GitHub repository
- https://github.com/praveen-kch/Py-NAT.git
- Can be Extended/ Altered / improved
- Also available as a CUI application with user guide
- Test case / examples / templates provided

Potential Use Cases…

- Automation for bulk Trim and stability analysis
- As a tool for hull form optimization
- Script Can be extended to perform advanced analysis like
  - Dynamics Stability in Waves
  - To measure instantaneous static loads, as a part of a dynamic analysis