

# About Me! (Lindsey Gray - he/him)

- Fermilab - Staff Scientist, U.S. CMS L2 for Software and Computing R&D
- Physics
  - Multi-Vector Boson physics, usually involving a photon, occasionally jet final states
  - EFT measurements past and present, from modified vertex functions to the more refined modern approaches
  - Occasional forays into final states with boosted jets (didn't really stick)
- Software
  - CMS E/gamma Reconstruction and Particle Flow
  - End-to-end HGCAL reconstruction with graph neural networks
  - Coffea (see Nick's intro) - more recently coffea 2023 dask migration
  - Infrastructure in/around analysis facilities:
    - Nvidia triton, dask/distributed, dask-awkward, dask-histogram, caches, network scheduling
- Hardware(-ish)
  - Smartpixels (neural networks in asics for on-pixel-sensor reconstruction)
    - Finding efficient neural networks that can produce understood error predictions
  - Precision timing detectors (CMS MIP Timing Detector)
    - Developed 4D vertexing algorithm, shaped physics case, initial detector design considerations, technical proposal, TDR, beam tests
- Future colliders: C3 hardware/software/analysis