Computer Analyst: AI/ML assisted analyses of radionuclides from high resolution gamma-ray spectra

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- We are developing a comprehensive database of over 100,000 analyzed gamma-ray spectra from an archive containing decades of radiometric analyses of a diverse range of radionuclide samples by trained gamma spectroscopists.
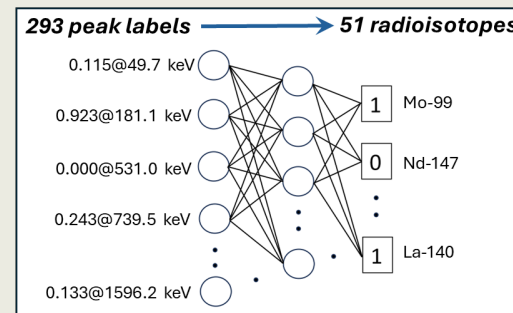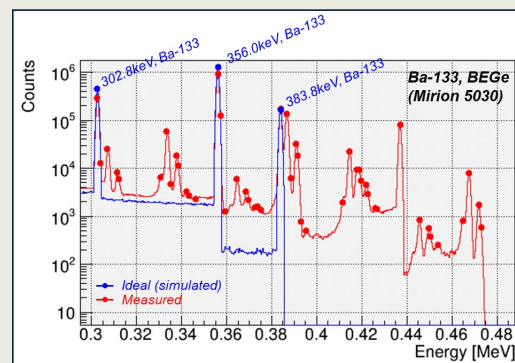
Average Accuracy for Radionuclide ID

# of Isotopes	25	34	51
Bayes Tuned	97.96%	98.18%	98.25%
50 searches 15 iterations	0.92	0.91	1.01
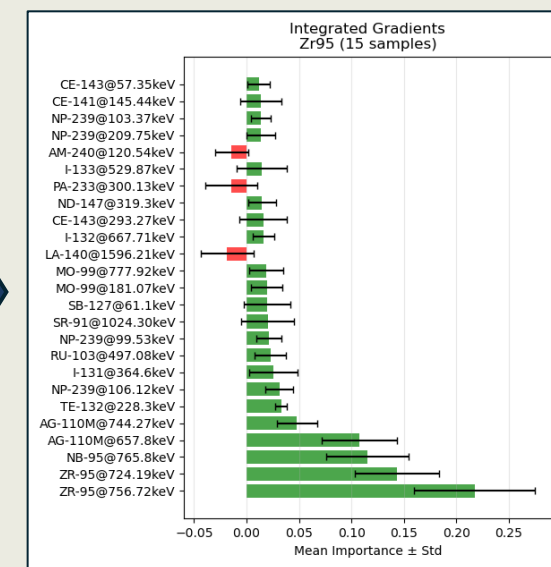
- This dataset was curated and leveraged to embed domain expert interpretation and analysis of gamma-ray spectra to train semi-supervised AI/ML models and algorithms as powerful tools for enhancing the speed, precision and robustness of gamma spectroscopic analysis.

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