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Geometric Unified Learning for Neurological Disease Detection

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This talk introduces Geometric Unified Learning (GUL), a cutting-edge technology designed to enhance the detection of neurological diseases and brain disorders. By leveraging reusable building blocks and techniques rooted in differential geometry, GUL addresses critical challenges in deep learning, including data overfitting, inefficiencies, and lack of interpretability. It provides clinicians with transparent, trustworthy, and highly interpretable predictions by identifying intrinsic patterns within complex brain structures. GUL's efficient data processing and simultaneous search and learning capabilities enable robust, flexible, and resource-efficient solutions. By reducing the time and effort required for data analysis, GUL not only supports better clinical decision-making but also saves valuable time for healthcare providers, ultimately improving patient outcomes. This approach tackles challenges like data quality, scalability, and parameter tuning, offering a powerful alternative to traditional deep learning models.