Healthcare applications

- Pneumonia detection from chest X-rays (Scientific Reports'22a, Nature Portfolio)
- Brain tumor detection from MRIs (Scientific Reports'22b, Nature Portfolio)
- Medical dialog generation (EMNLP'20, ACL'21b)
- Pathology visual question answering (ACL'21a)
- 3D Medical Imaging Segmentation (AAAI'23)

ML tasks

- Neural architecture search (ICML'22, CVPR'22, CVPR'21, ACM MM'22)
- Data reweighting, selection, augmentation (ICML'23c, ICLR'22, ACL'22, TACL'22a, AAAI'22)

Instances of Skillearn

- Learning by self-explanation (NeurIPS'22)
- Learning-by-Grouping (ICML'23b)
- Learning by teaching (ICLR'23b)
- Small-group learning (CVPR'22)
- Learning by ignoring (ACL'21a)
- Reading by summarizing (TACL'22a)
- End-to-end contrastive learning (TACL'22b)
- Learning from mistakes (AAAI'22)
- Image understanding via captioning (ACM MM'22)
- Self-directed learning (AI Open'22)

Skillearn framework

- Skillearn: ML Training Strategies Inspired by Humans' Learning Skills (ICML'23a)

System

- Betty: A Programming Framework for Multi-level Optimization (ICLR'23a, Notable-Top-5% Paper)