## Machine Learning



....

CAREL Center for Applied Research and Enhanced Learning

## Capabilities

We deliver state-of-the-art machine learning and pattern recognition solutions optimized for each use case by combining cutting-edge research expertise with real-world problem-solving.

- Computer Vision
  - Techniques
    - Image classification
    - Object detection
    - Image segmentation
    - Face and person recognition
    - Image restoration
    - Feature matching

- Applications
  - Object tracking/counting
  - People demographics (age, gender)
  - People re-identification
  - Liveness detection
  - Sports events detection
  - Document structure recognition
  - Photo verifications
  - Al video surveillance system
  - Medical imaging
  - Intelligent video analytics
  - OCR





## Natural Language Processing

- Techniques
  - Machine translation
  - Question and answering systems
  - Text summerizations
  - Sentiment analysis
  - Speech recognition
  - Token classification
- Applications
  - Chat bot
  - Email filtering
  - Review analysis

- Data Science/ Machine Learning
  - Techniques
    - Sequence analysis
    - Clustering
    - Data mining
    - Dimensionality reduction
    - Data analysis and visualisations
  - Applications
    - Recommender systems
    - Stock market predictions



- General ML
  - End to end model pipeline development (Research to productionized system)
  - Code and model optimization (Parallel computing, Model pruning, Quantization)
  - CPU and GPU accelerators (Openvino, TensorRT)
  - Edge computing (Nvidia JETSON devices, Intel Neural Compute Stick)
  - Experiment tracking and model registry
  - Model training with GPU in local/remote servers
  - Develop algorithms for client requirements
  - Develop simple web interfaces





