

MCML Research Topics Guide

Learning Algorithms

Statistical Foundations

ML Theory

ML Foundations

Deep Learning

Interpretability and Trustworthy AI

AutoML, Black-Box Optimization and Meta Learning

Bayesian & Probabilistic Learning / Uncertainty Quantification

Causality

Active Learning and Online Learning

Data-centric ML

Process Mining

Unsupervised Learning and Clustering

Weakly and Self-supervised Learning

Privacy and Security

Natural Language Processing and LLMs

Computer Vision

Generative AI and Foundation Models

Multi-modal Learning

Human-Computer Interaction (HCI)

Robotics

Reinforcement Learning & Control

Bioinformatics / Biostatistics

AI in Healthcare and Medicine

Medical Imaging

ML in Chemistry & Materials Science

ML in Atmospheric Science

Remote Sensing

ML in Earth & Climate Sciences

ML for Scientific Discovery

AI for Business

Ethics and Law in AI

Computational Neuroscience