General Machine Learning (active learning, clustering, online learning, ranking, reinforcement learning, supervised, semi- and self-supervised learning, time series analysis, etc.) Deep Learning (architectures, generative models, deep reinforcement learning, etc.) Learning Theory (bandits, game theory, statistical learning theory, etc.) Optimization (convex and non-convex optimization, matrix/tensor methods, stochastic, online, non-smooth, composite, etc.) Probabilistic Inference (Bayesian methods, graphical models, Monte Carlo methods, etc.) Applications of Machine Learning and Deep Learning (finance, fintech, edtech, computational biology, healthcare, neuroscience etc.) Generative AI (language models, vision models, multimodal models) Trustworthy and responsible AI Data Mining and Knowledge Discovery Knowledge representation and reasoning Data Models, Semantics, Query languages Data Visualization and Interactive Data Exploration Recommender Systems