KING'S COLLEGE LONDON
MASTER OF SCIENCE – INTELLIGENT SYSTEMS – 2018-19

7CCSMPRJ - INDIVIDUAL PROJECT

Predicting Truthfulness in Data Sharing (A Machine Learning Project)

7CCSMAIN - ARTIFICIAL INTELLIGENCE

• Introduction to AI • Probabilistic Reasoning I • Probabilistic Reasoning II • Sequential Decision Making • Temporal Probabilistic Reasoning • Game Theory • Argumentation I • Argumentation II • (A peek at) Machine Learning • AI & Ethics

7CCSMCVI - COMPUTER VISION

• Introduction • Image Formation • Low-level Artificial Vision • Low-level Biological Vision • Mid-level Biological Vision • Mid-level Artificial Vision • Multi-View Vision - Stereo and Depth; Video and Motion • High-level Artificial Vision • High-level Biological Vision

7CCSMML1 - MACHINE LEARNING

• Introduction • Inductive Learning • Probabilistic models I • Probabilistic models II • Evolutionary Algorithms • Neural Networks • Kernel Methods • Reinforcement Learning I • Reinforcement Learning II • Learning from Demonstration

7CCSMPNN - PATTERN RECOGNITION

• Introduction • Bayesian Decision Theory and Density Estimation • Discriminant Functions • Neural Networks • Feature Extraction • Multilayer Neural Networks • Fuzzy Inference System • Support Vector Machines • Ensemble Methods • Unsupervised Learning & Clustering

7CCSMAMS - AGENTS AND MULTI-AGENT SYSTEMS

• Introduction • Intelligent Agents • Practical Reasoning • Agent Architectures • Communication • Negotiation • Social Choice Theory • Auctions • Argumentation • Argument Dialogues

7CCSMOME - OPTIMIZATION METHODS

• Introduction • Branch & Bound • Single-Source Shortest-Paths Problem • Dijkstra's Algorithm, All-Pairs Shortest Paths • Network Flow Problems • Minimum Cost & Multicommodity Flow Problems • Linear Programming • BFS, DFS, Topological Sort, and Minimum Spanning Trees • Genetic Algorithms • Simulated Annealing

7CCSMTSP - TEXT SEARCHING AND PROCESSING

• Basic Concepts • Sequential String Matching • Dictionary Matching • Searching a List of Strings • Suffix Trees • Suffix Tree Applications • Table of Prefixes • Regular Expression Pattern Matching • Practically Efficient String Matching • Suffix Arrays

7CCSMART - ADVANCED RESEARCH TOPICS

• Doing Research • Writing • Writing Scientific Papers • Literature Reviews • References • Refereeing • Presenting Scientific Papers • Summary

Smith Kakar