

Automated Machine Learning with the JADBio platform

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Abstract: Machine Learning (ML) could be employed to analyse smart cities data to produce predictive models of energy consumption, traffic, waste, and others. ML, however, requires significant expertise is time-consuming and error-prone. Automated Machine Learning (AutoML) promises to democratise Machine Learning (ML) to non-expert analysts, boost the productivity of expert analysts, reduce methodological analysis errors, and improve the replicability, reproducibility, and provenance of analyses. This talk will present the construction, design, and novel algorithms for the JADBio AutoML platform, standing for Just Add Data Bio. JADBio scales up to hundreds of thousands of features, scales down to small sample sizes, correctly estimates out-of-sample predictive performance, optimises classification thresholds, and offers other functionalities to a practitioner

Short Bio: Ioannis Tsamardinos is a Professor at the Computer Science Department of the University of Crete and a cofounder of the JADBio start-up company. Prof. Tsamardinos obtained his Ph.D. from the Intelligent Systems Program at the University of Pittsburgh and has taught at the Department of Biomedical Informatics at Vanderbilt University. Among other distinctions, he has been awarded the NASA Software of the Year Award for his participation in the Remote Agent, the first autonomous software program for the Deep Space I mission, and the ERC consolidator Award. He has co-authored more than 130 scientific papers been referenced more than 9000 times in the literature. His research focuses on machine learning, causal discovery, and automated machine learning. JADBio is a commercial product that is now used by hundreds of users worldwide and large life science companies