Automated Machine Learning (AutoML) for All Business Majors and Levels

Workshop

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Extended Abstract

This hands-on workshop will cover pedagogical strategies related to teaching Automated Machine Learning (AutoML) for IS majors, non-majors, and MBA students. AutoML is simply machine learning where data cleaning, feature engineering, algorithm selection, hyperparameter tuning, as well as most other steps are done automatically, removing the need for years of training in machine learning and statistics. Forbes Technology Council as well as many others have suggested that 2018 will be the year of automated machine learning, and most major technology companies are feverishly developing AutoML technologies to stay competitive. In three hours, with no programming, we will do what will normally take a data scientist three months. Participants will go through the whole data science process from project objective definition, acquisition and exploration of data, modeling of the data, interpreting and communicating results, and implementing the solution. We will end with a discussion of approaches for teaching AutoML. The workshop is appropriate for faculty who have no previous experience with machine learning as well as experienced machine learning researchers who have not been exposed to AutoML. The instructor has won both college-wide and university-wide teaching awards and has taught ML for a decade and AutoML for two years at both the undergraduate and graduate level, and his book entitled Automated Machine Learning for Business is under contract with Oxford University Press. Participants will receive a copy of the book.

Keywords

Machine learning, education, business, business analytics.