

Title: Introduction to Uplift Modeling in Care Management Intervention Programs in Health Care

Abstract:

Explore a general introduction to uplift modeling, a relatively newer area in machine learning which has been successfully used in retail (Wayfair etc.). The concepts are parallel to the intervention programs in health care, where we are interested in measuring the treatment effects and ultimately directing the right members to the most effective programs, driving the highest value for the programs both from a financial and health outcomes perspective. Uplift modeling can also be viewed in the context of causality where we are interested in the impact of a treatment relative to a member not receiving the treatment. One unique component of this talk will be a discussion about expanding the framework to go beyond treatment impact and include other impacts such as cost or revenue. This framework will be showcased using an optimization approach (knapsack) as well as with probability distributions. A discussion about a potential implementation that expands the demo will be covered.