

## Cause and Effect

### Background:

Causality is different from correlation, it is a directed and acyclic relationship. There are three steps for developing of causal inference: researchers see and observe data to get objects' association, then they do intervention and imagine counterfactuals. In stochastic and machine learning areas, observing data and using statistical inference methods to get random vector's joint distribution, then get natural causal relationship is still a hot topic.

I am doing some work about time-varying dynamic Bayesian network and event prediction.

### Methods:

Granger causality, Bayesian network, Rubin Causal Model and Causal Diagram...

### Applications:

E-commerce companies are using causal inference to optimize their recommendation systems by leveraging the deep reasons behind customers' purchases;

Subway systems could adopt causal learning to obtain relationships cause and effect in the systems and do a guidance for passengers...

