Homework Assignment 15: Applied Probabilistic Models

Project Proposals

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Proposal 1

This proposal is about fitting probability models to frequency data from my thesis work about the delivery of concrete [1]. This data is generated from preliminary results pertaining to different solution methods, applying χ^2 Goodness-of-fit test. In addition, create a model that helps predict the probability of an instance to reach an optimal value given other characteristics, performing generalized linear models.

Proposal 2

The second proposal is the forecast for manufacturing operation through time series and Auto-Regressive Integrated Moving Average (ARIMA) model. This will help to forecast sales/demand for a period of time.

References

[1] Oscar Alejandro Hernández López. Study of Mixed Integer Programming Models for the Concrete Delivery Problem, 2020.