A unified deep-cure model approach

Modeling survival data with long-term survivors is a relevant topic in many applications. These models are known as cure rate models. The mixture cure model and the promotion time cure model are the two most well-known cure rate models. By using Box-Cox transformations, we can have a more general cure rate model where the mixture and the promotion versions are obtained as special cases. This unified version saves us from the decision of selecting one of them for the problem at hand. This project aims to relax linear effects assumptions of the covariates by leveraging the flexibility of deep neural networks in the unified cure rate model.

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