

CP-1 Part 1: ISyE 6404

Peter Williams

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Contents

PH-Regression Data-Fit (70%)	2
Large-p-Small-n Problems in PH-Regression (30%)	2

PH-Regression Data-Fit (70%)

- 1) Locate a data set in the field of your interest, e.g., eCommerce, medical study, drug development, supply-chain/logistics operations, to practice the PH-regression technique. Note that we need to predict both hazard-rate and the survival function at an input x_0 .
- 2) Follow Task #4 in EP-2 to construct a 90% pointwise confidence interval based only the bootstrap method.
- 3) Skim through the CP-1 references given in Files> Projects> CP-1> Reference> directory to write a two-page report for summarizing the work there.
- 4) Outline steps for implementing one of the studied procedure addressed in the reference. You DO NOT need to implement them, but describe how to do it.
- 5) Discuss whether the results getting in (2) and (4) might be different (in what way).

Large-p-Small-n Problems in PH-Regression (30%)

- 1) Search the Internet using the key words from the title given in Task #2 for large-p-small- n problems.
- 2) Locate three publications with a section on real-life data analysis/example.
- 3) Briefly summarize
 - i) what is the goal of the study,
 - ii) key ideas in solving the problem, and
 - iii) what do you learn from their real-life data study.