Project description

When is the optimal time to build?

* Who are the members of your research team?
  + The members of the team are Frederik Ingemann Olsen and Nikolaj Toepfer Melchiorsen
* What is the (working) title of your paper?
  + A dynamic programming approach to model the retirement behavior of Danish workers
* What is the research question?
  + At what age should you retire – and what are the factors which decides this?
* References to relevant literature that you are inspired by - best to point out one “key reference”.
  + A dynamic programming approach to model the retirement behaviour of blue-collar workers in Sweden
  + Rust
* The model you have in mind as a starting point for your analysis
  + Decisions, States, Heterogenity
  + Utility/Payoffs
* The solution methods and numerical techniques you consider applying
  + Value function iteration
  + Option value model
  + Life-cycle models
* The estimation methods you consider on implementing
  + MLE using NFXP
* The data you rely on (if empirical paper)
  + Retirement
    - We hope to either gain access to the Danish register data or to find something of use in statistic banken
    - If that isn’t possible, we will just use the same data as in the paper
* Potential counter factual simulations of interest
  + One could look into what the difference would be if there were different pensions
* A progressive plan of action / plan of work (start simple).
  + At first we plan to increase our understanding of the paper which we are trying to replicate.
  + We then estimate the model hopefully using newer data, and possibly with an increased amount of factors.
  + The estimation of the model might be done while writing about the theoretical work, as they can be used to “help” each other.
  + Lastly we will interpret upon the results, and look at possibly flaws, and places to improve upon.

The only requirement is that there is a fixed point problem, and you solve that(preferably a bellman)