Computational Methods in Economics

Final Project

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Final Project

- What I expect: you to use some of the tools we learned in the course in something that will be useful for your research
- For the presentation:
  - It will be about 10 minutes (depending on the final number of students)
  - Present the general economic/research problem
  - Explain the computational method you are planning
  - If you already have some results, you can show them, but I do not expect that
- In the professional you will be required to talk about your project in between 2min-1h30min.

Final Project

- For the final project
  - Short write-up of the problem, method and results (3-5 pages).
  - Attach the code
  - It is a computational method course, so you can emphasize this part
    - For example, you may try different optimization algorithms. In a final paper you would never show intermediate steps. Here you are **very** welcome to do so.

Scores

- Combine the “ambition” of the projec and the execution

Possibilities:

- Anything that may be useful for your own research
  - If you are solving any model, you can solve/use the tools we covered
  - If you are not solving any model, is there any use in the empirical part of your project?
    - Can you do a monte carlo simulation to study the properties of your estimator
    - Simple model to talk about mechanisms?
    - Alternative estimation strategies
  - Probably just avoid:
    - I have this data and I used linear interpolation to get an approximation.
    - Instead of OLS, I minimized directly sum of squared residuals.

Possibilities

- You can enrich the model we will see in the second part:
  - Add labor supply
  - Enrich credit frictions
  - Add financial market shocks
  - Add family decisions / marriage
  - …
- Generate fake data and estimate it. Discuss identification

Possibilities

- Simpler model of a new topic:
  - How to explain the number of people playing Mega-Sena as a function of the prize?
  - Model if a reduction in the working hours. For workers. For firms
  - Model with students receiving stipend to complete high school
  - Model with possibility of evasion using a risky asset (cryptocurrencies)