

Essay

An essay written in English, approximately 1000 words in length (two pages, 12pt), must be submitted. The essay must contain a declaration that the essay is the candidate's own work and that the candidate has clearly identified any ideas stemming from outside sources.

State your favorite theorem from one of the following three fields:

1. approximation theory,
2. statistics,
3. optimization

that you encountered in your undergraduate studies. Explain your choice as well as the context provided by the class where you encountered the theorem, and discuss the importance of the theorem in the context of data science. Provide a short sketch of its proof, and discuss the assumptions and the scope of the chosen theorem (e.g., in terms of potential generalizations, potential limitations, or possibly also related open questions).