Information on topics for final theses (Bachelor and Master)

In this document you will find some possible topics for final theses at the Chair of Data Science in Economics of Prof. Dr. Astrid Krenz.

If you would like to write a Bachelor thesis at the Chair, then you will have to name the Chair of Data Science in Economics as a first preference in the WiWi-BOS application process. We recommend that you have attended at least one course at our Chair (a Lecture or a Seminar). When you have been approved and assigned a spot for a Bachelor thesis at our Chair, then please contact us within the relevant deadlines of the examination office and tell us which topic(s) you would be interested in. You may also approach us with your own topic proposal for your thesis.

For Master theses please get in contact with us directly via email at ls-dsecon@rub.de. You are welcome to let us know which topic(s) you would be interested in. You may also approach us with your own topic proposal for your thesis.

For any further questions you are welcome to contact us via email at ls-dsecon@rub.de.

Data Science

- The application of machine learning methods in economics – A comparative analysis (using the example of ...)

- The application of NLP in economics – A comparative analysis (using the example of ...)

- Satellite Data meets Machine Learning – New methods for measuring economic development

- On the role of narratives in the sustainability debate/ the AI debate/ the inequality debate – Evidence from the analysis of social media data/ newspaper articles ...

- Network analyses and machine learning methods – An application for filed patents in Germany/ in the European Union/ in the USA

- A comparative analysis of machine learning algorithms to model the relationship between CO_2 emissions and gross domestic product

- On the classification of text documents in economics – A critical discussion of machine learning algorithms

- The role of machine learning algorithms in measuring innovation activities

- Central bank communication – An analysis using methods from natural language processing

- Sentiments on economic inequality/ ... and social media – A text data analysis

Further topics which are in particular related to regional economics, labour economics, international economics, development economics are possible

Digital transformation

- Which (economic) factors are driving the development of the digital transformation in Germany/ in Europe/ in the USA/ in Asia/ in Africa ...?

- The role of the digital transformation for economic growth

- How are the digital, ecological and socio-economic transformation related to each other?

- A critical discussion of analyses of sustainability in economics against the background of a technologically changing world

- Economic determinants of innovative capability of companies in Germany/ Europe/ the USA/ Asia/ Africa

- New technologies and the competitiveness of companies in Germany

- On the role of digitalisation in healthcare/ administration/ … – An economic analysis

- Which opportunities and risks does blockchain technology/ bitcoin/ 3D printing bring?

- Robots, artificial intelligence and big data – An analysis of the impact of new technologies on labour markets/ the future of work

- How does digital transformation affect the labour market/ employer-employee relations?

Further topics which are in particular related to regional economics, labour economics, international economics, development economics are possible