

Externe Expertise MA Kulturgeographie Geo-data integration and analytics

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Studiengänge: MA Kulturgeographie (Externe Expertise)

ECTS: 5 (2 SWS); **Teilnehmerzahl:** 16

Zeit und Ort: Do 16:15-17:45, 18:00-19:00, 00.133 CIP-Raum 1

Anmeldung:

- über Geo-Kurs (bereits abgeschlossen)
- in StudOn: *Geographie/Glasze/Externe Expertise (Dr. Manuel Lopez): Geodata-integration and -analytics*
- oder in der Begrüßung der Master-Studierenden am Mo., 16. Okt. 11.30

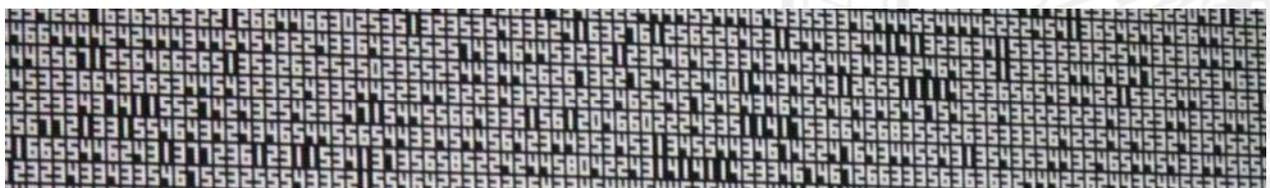
Inhalt:

During this lecture we are going to walk along the technical aspects of the data integration and data analytics. We will take a running example to depict the technological shape of European countries by using data provided by data services such as the Stackexchange and GitHub APIs. We will visit some basic programming aspects such as condition expressions and class/object notions in Java. From the database side we will review Wide Column approach for storing large amount of data.

Finally, we will perform some analytics over the data in order to answer questions such as 'Which are the most adopted Big Data technologies in Europe?', 'Which country has the more active engineers asking questions, answering questions, commenting answers?', 'Which technologies are the mostly used within a given Geographical area (e.g. WTK shapes like polygons, circles, squares)?', 'What is the correlation between the top 20 technologies in Europe?', 'Why some technologies cannot thrive in Europe?'

The second half of the lecture will be devoted to tackle the interesting questions that the master students will bring to the course motivated by their recently acquired awareness of tools for data integration and data analytics. They will propose, conduct, and present a project using open geographical data (e.g. Deutsche Bahn, elections, census, demonstrations) and an open source tool of their choice.

Students will be supported for design and implementation concerns in individual and group basis via both chat and face-to-face sessions. At the end of the semester the students will present their work to specialists of both Geography and Computer Science.



Voraussetzung: Kenntnis der Grundlagen Geographischer Informationssysteme und Interesse, sich in die Programmiersprache Java einzuarbeiten

Ziele: Training von Techniken der Geodaten-Integration und -Analyse