

The Dr. Theo Schöller Chair of Technology and Innovation Management offers a Interdisciplinary Project with the following topic:

Application of state-of-the-art web scraping techniques to company data

# **Background and motivation**

Big data, advanced analytics, or artificial intelligence are some of <u>the</u> buzzwords of the last years – Mainly due to computing becoming cheaper and cheaper.

This comes in handy, as the chair is currently conducting empirical research in the area of IP management and building a large data set. We aim to find answers to key questions in the multi-billion licensing business through analyzing thousands of decisions of licensing executives. Thereby, we want to apply state-of-the-art web scraping techniques for collecting relevant data.

The IDP ideally starts by mid-December. An earlier/later start date is possible. You will be closely supervised by Adrian Goettfried.

## **Objectives and Methodology**

The goal of this project is to build a data set with company-specific data by applying web scrapping techniques. We plan to enrich available intellectual property-related data with company-specific data to answer highly relevant questions, both for practitioners and academics.

To answer these questions, you will first develop a web scraping concept including a time plan for the data set based on jointly defined requirements (required data, data sources, etc.), then build and run data source-specific web scrapers and conduct data validation and quality tests.

#### What we offer

- Work on an exciting topic with high relevance for science and practice
- Development of a transferable skill set, i.e., data mining in general
- Close coaching and a jointly defined timeline including milestones
- A fun but also challenging working environment

### What we expect

- Master or advanced Bachelor student
- Structured, reliable, and independent working style
- Creative and logical thinking, persistence, and can-do attitude
- First experience with web scraping and data handling (cleaning, documentation, validation) helpful; willingness to acquire necessary skills expected
- Good grades

### Contact

Please contact Adrian Goettfried (adrian.goettfried@tum.de) if you are interested in this topic. Your application should include your CV, a short letter of motivation (200 words max.), a current transcript of records and your preferred starting date. For more information on our general requirements, the application procedure and the style quidelines please go to https://www.tim.wi.tum.de/index.php?id=210.

