Developing a Web Crawler to identify emerging Startups in Europe
(IDP at the Entrepreneurship Research Institute in collaboration with INNOSPOT)

Are you interested in cutting-edge technologies and want to discover the latest trends in this area through startups? Then our IDP with INNOSPOT is the place to be! INNOSPOT is specialized in identifying the latest digital technologies and startups which can help companies in digitizing their business.

The goal of the IDP is to build a web-crawler which identifies emerging startups in Europe. While the web-crawler is an important tool of our IT chain, we are looking for highly motivated students who love to work in and with startups.

**Subject area:** Economics: You will be supervised by the TUM Entrepreneurship Research Institute and will take a lecture (6 ECTS) e.g. in “Global Entrepreneurship” or “Technology and Innovation Management”.

**Project part:** May consist of the following work packages and will represent 7 ECTS (approx. 210 working hours, both full-time and part-time possible).
- Development of a web crawler by using a python-based application framework (e.g. Scrapy)
- Implementation of a web application to control a specific crawl on multiple websites and to visually filter and select search results
- Saving the crawling data (e.g. by using Amazon AWS)
- Handling of crawling jobs (parallelization, failure handling, performance)
- Handling of IP-Blocking – block detection and integration of proxy services

**Requirements** (depending on work package):
- Python (or similar programming languages)
- Optional: Familiarity with the MEAN-Stack for the web application (mongoDB, express, AngularJS, node.js)

**Procedure:**
- You get one mentor from the chair and one from the INNOSPOT team (practical work)
- We will define the theoretical part and work packages in a kick-off meeting
- Regular update meetings but flexible working times / places
- Team size: up to 4 students (if you apply individual, we will match you into a team)
- Start date: As soon as possible

**Your chance:** You will be part of an early-stage startup. You will directly work together with the founders (Manage&More alumni) and experience how to build up a company. We offer a friendly atmosphere and tasty free coffee. If you are interested, you might join us after the project as working student or full-time employee.

**Application**
Send your CV or LinkedIn / XING profile to daniel.buschmann@innospot.de with the subject line “IDP Startups” or give us a call at +49 151 21638279.

Technische Universität München
TUM School of Management
Entrepreneurship Research Institute