

## **Open PhD Position: Text Mining on Financial News in Cooperation with Deka Bank, Frankfurt am Main, Germany**

We are looking for a **highly qualified and motivated PhD candidate** with an interest in **text mining, data analysis, and machine learning**.

In Germany, large companies listed at the stock market are obligated by law to **publish relevant information to their investors**. These financial disclosures, called “ad hoc announcements”, are of particular interest to researchers from Finance and Computer Science. Each ad hoc announcement typically provides novel information to investors, and hence, these announcements are very likely to cause significant subsequent stock market reactions.

However, predicting the market reaction is a very challenging task and the predictive performance of state-of-the-art academic methods is **not much better than random guessing**. The main goal of this research project is to **improve the performance of existing models** by using recent advances in text mining, such as word or document embeddings, and novel methods based on deep learning.

The **ideal candidate** has a background in Quantitative Economics, Math, or Computer Science with an interest in Finance. However, we are also open to interested and motivated candidates from other fields. During his/her PhD, the candidate is expected to get proficient with Python, tensorflow/keras, R, and other tools from data science. **Fluency in English and German is a strict requirement**.

The project is in cooperation with Deka Bank and the working location will be Frankfurt am Main, the heart of Germany’s Finance industry. The salary is based on the pay scale TVL-E13. The project will start at the beginning of 2020.

The **Chair of Information Systems at the Faculty of Economics and Behavioral Sciences** uses big data analytics to explore a variety of research questions about financial markets, social media, energy, and smart cities. You can find more information about our research on our website <https://www.is.uni-freiburg.de/>.

**For questions and applications**, please contact Prof. Dr. Dirk Neumann via email: [dirk.neumann@is.uni-freiburg.de](mailto:dirk.neumann@is.uni-freiburg.de). Please provide a letter of motivation, your CV, and your recent transcript of records.