

Research Associate in Applied & Operational NLP

**at the Faculty of Social Sciences
at the Institute for Political Science**

(Remuneration group 13 TVöD)

with immediate effect and limited until December 2024 with 32 working hours per week (about 80%).

The research associates will be part of an interdisciplinary project - with a team of computer scientists and social scientists – hosted at the Institute for Political Science at the Universität der Bundeswehr München (Prof. Dr. Jasmin Riedl and Prof. Dr. Timothy Williams). The project is establishing a Twitter lab that analyses historic and real-time Tweets. The Twitter lab will become an infrastructure that allows for retrieving, storing and processing Twitter data to analyse electoral events and violent episodes, such as riots, but also answer research questions from the social sciences more broadly. The project has three interrelated objectives:

1. To build a technical infrastructure that allows for retrieving and storing large-N Twitter data. Moreover, to create an interface that allows for pre-processing and analyzing Twitter data.
2. To investigate digital campaigning practices on Twitter in a comparative perspective. Starting with the German federal election campaign of 2021, campaign strategies and practices of parties and candidates as well as their interaction with and mobilizing effects on voters will be examined. Special attention shall be given to the presence and effects of social bots.
3. To investigate the social dynamics of violence in the run-up to and during riots in a comparative perspective across various recent events (incl. radicalising and incendiary speech, calls to mobilization and social interaction). Reflections on multi-method integration of computational and field research methods form a further focus.

Your tasks:

- You support the extension and operation of the infrastructure (AI HPC + SW-Stack).
- You support the development of NLP models and related processing pipelines.
- You explore and implement approaches for the efficient application of language models for workflow operation (, e.g. using model distillation or applying inference optimizations).
- You explore no-/low code techniques and support the development of a visual end-user interface.

Qualification requirements:

- excellent Master's degree or PhD in computer sciences or a relevant adjacent field
- strong experience in container technologies (such as Kubernetes)
- strong experience in training and deployment of advanced NLP models
- Knowledge in the field of HPC is a plus.
- Experience in DevOps/MLOps practices are desirable.
- Fluent software engineering and programming skills are obligatory.

What we expect:

- substantive interest in interdisciplinary research, especially social sciences
- individual initiative and responsibility, independence and enthusiasm
- teamwork, creativity and thoroughness

What we offer:

- state-of-the-art hardware equipment with highest computing capacity (AI HPC – to train also large NLP models)
- opportunity to work with Twitter Historical PowerTrack API and RealTime PowerTrack API for four years
- pleasant working environment with a friendly, open, dedicated and well-regarded interdisciplinary team
- active promotion and support of your academic development and qualification
- excellent networking opportunities
- possibility for higher education pedagogical training and certification
- family-friendly working environment, including an on-campus nursery
- attractive sport and leisure facilities on campus
- Classification in remuneration group 13 takes place in compliance with § 12 TVöD regarding the actual activity to be performed and the fulfillment of personal and tariff requirements.
- Depending on your qualifications (, e.g. PhD) and professional experience, a classification in E14 is possible.
- possibility for mobile working

The Universität der Bundeswehr München aims to increase the proportion of women in academia and explicitly welcomes applications by women. People with disabilities and equal qualifications will be particularly considered.

Have we sparked your interest?

Please send your application (cover letter, CV, diplomas) as one single PDF-Document by **15 January 2021** to:

wiebke.drews@unibw.de.

With your application you agree that for the purposes of this application your personal data will be saved, processed and forwarded to departments and individuals relevant to the application process. More information on data protection can be found here: <https://www.unibw.de/home/footer/datenschutzerklaerung>

We are looking forward to your application!

Any questions or further information can be obtained by contacting Dr. Wiebke Drews (wiebke.drews@unibw.de).