

**“Friedrich List“ Faculty of Transport and Traffic Sciences**

At the **Institute of Transport and Economics**, the **Chair of Big Data Analytics in Transportation** is seeking to employ a

**Research Associate / PhD Student**

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting **October 1, 2021**. The position is limited for 3 years with the option of extension. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG). The position aims at obtaining further academic qualification (e.g. PhD).

**Tasks:**

- teaching support (in German and English);
- examination support;
- supervision of seminar papers and theses;
- administrative tasks;
- research on the topics of the chair;
- scientific publications;
- presentation of research results at relevant conferences.

**Requirements:** very good university degree in Data Science, Computer Science, Statistics, Transportation Economics (focus: Data Analytics, Econometrics or Optimization), Information Systems, Mathematics or a comparable course of study. In addition to substantial skills in data analytics, we expect knowledge of the relevant programming languages (especially R and/or Python) and in-depth knowledge in at least one of the following topics:

- (Large-Scale) Data Science (including Data Analytics, Stream Mining, Deep Learning, Visualization);
- Machine Learning (e.g., AutoML, Algorithm Selection / Configuration, Feature Selection, Hyperparameter Optimization, Uncertainty Quantification, Robustness, Federated Learning);
- Explainable AI / Interpretable Machine Learning (e.g., comprehensibility of algorithmic behavior, social impact of algorithms);
- Optimization (e.g., evolutionary, multi-objective, mixed-integer, large-scale);
- Benchmarking (e.g., performance evaluation, problem characterization);
- Route planning (e.g., vehicle routing, traveling salesperson problem);
- Time series analysis.

We request very good English skills as well as a strong passion for answering to and developing solutions for data analytical questions. We are looking for a proactive and highly committed team-player with a high degree of independence. German language skills and some initial experience in answering questions related to transportation and/or economics are desirable. The same applies to university teaching (for example, by supervising tutorials), scientific work and/or the implementation of collaborative software projects (including the use of Git, Docker, etc.).

Applications from women are particularly welcome. The same applies to people with disabilities.

Please submit your comprehensive application by **July 30, 2021** (stamped arrival date of the university central mail service applies) by mail to: **TU Dresden, Fakultät Verkehrswissenschaften „Friedrich List“, Institut für Wirtschaft und Verkehr, Professur für Big Data Analytics in Transportation, Prof. Dr. Pascal Kerschke, Helmholtzstr. 10, 01069 Dresden** or via the TU Dresden SecureMail Portal <https://securemail.tu-dresden.de> by sending it as a single pdf document to [pascal.kerschke@tu-dresden.de](mailto:pascal.kerschke@tu-dresden.de). Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

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**Reference to data protection:** Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: <https://tu-dresden.de/karriere/datenschutzhinweis>