IVI

VISIONARY TOPICS INSPIRE YOU AND EXCELLENT PROGRAMMING SKILLS ARE
YOUR STRENGTH?
WE AT FRAUNHOFER IVI OFFER YOU AN EXCITING STUDENT JOB:

DEVELOPMENT OF BATTERY MONITORING SOFTWARE

In the »Energy Storage Systems« research group, we develop and test pioneering methods for the field data-based evaluation, analysis and diagnosis of battery systems in the context of electric vehicles. A particular focus is the prediction of the battery's aging state. To this end, we draw from a comprehensive data pool of several dozen vehicles, filled by the team's own data collection and monitoring platform IVImon.

To improve our software development processes and versioning, it is necessary to run rigorous tests and demos. You can help us build a sophisticated testing and demonstration infrastructure that systematically scrutinizes our IVImon code. We are looking for a motivated student who enjoys this technical challenge.

Your tasks
– specification of the requirement profile
– design and automation of software processes (versioning, testing, documentation)
– selection and preprocessing of appropriate data sets
– application of machine learning methods for battery aging detection and prediction
– evaluation of the simulation results

Your profile
– studies in computer science, mathematics, an engineering or natural science or in related fields
– skills and experience in programming with Python
– willingness to dive into the code and documentation of our IVImon algorithms
– interest in working with battery data and their analysis
– initiative and commitment
– a structured working process and abstraction capabilities
– ability to communicate and work in a team

What you can expect

– collaboration in our practical and application-relevant research and development
– insight and participation in interdisciplinary and high-potential energy storage topics
– a modern research infrastructure
– dedicated supervision
– an open-minded and cooperative working atmosphere
– creative leeway to organize your work
– institute's own scientific library
– flexible working hours tailored to your schedule and exams

You can work on the topic as a student assistant or an intern or within the scope of a student research project.

Fraunhofer is the largest organisation for application-oriented research in Europe. Our thematic fields are oriented towards people's needs: Health, safety, communication, mobility, energy and the environment. We are creative, we shape technology, we design products, we improve processes, we open up new paths.

The Fraunhofer Institute for Transportation and Infrastructure Systems IVI in Dresden employs more than 100 scientists in four departments. The institute cooperates closely with the TU Dresden, the TU Bergakademie Freiberg and the Ingolstadt University of Applied Sciences.

If you are interested, please contact us, quoting the reference number IVI-Hiwi-00672 an

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