A PhD Student position (100% EG 13 TV-L) is to be filled as soon as possible in the Scientific Computing group of Prof. Dr. Dirk Pflüger at the University of Stuttgart. The appointment will be initially for three years.

The generation of meaningful test sets in semiconductor testing plays an important role to fast and cost-efficient testing. The goal of this project is to intelligently explore high-dimensional real-world data to learn and predict. This will improve beyond state-of-the-art pure stochastic sampling which provides valid though very large test sets. We aim to develop a (semi-)automatic methodological framework for the self-learning generation of meaningful test sets and their analysis. This combines methods from data science, machine learning and numerical approximations in an interdisciplinary environment.

The position is within the newly established Graduate School “Intelligent Methods for Semiconductor Test and Reliability” (GS-IMTR) at the University of Stuttgart in cooperation with ADVANTEST. Its overall aim is to develop new methods for topics such as design for test and diagnosis; post-silicon validation; test generation and optimization; robust device tuning; system-level test; lifetime test and reliability management; and test automation. A modern understanding of these topics demands novel artificial intelligence methods and has tight connections to data science, data analytics, data understanding, visualization, security, and privacy.

We provide an excellent research environment with the GS-IMTR, the cooperation with ADVANTEST, and within the respective institutes, including a research stay at partner institutes abroad.

**Anforderungsprofil**

We are looking for a

- MSc graduate in computer science, mathematics, SimTech, data science, electrical engineering or a related field
- Strong mathematical skills
- Programming experience (preferably Python and/or C++)
- Knowledge of dimensionality reduction, machine learning, parameter identification, high-dimensional approximation, or inverse problems are an asset

We offer an interdisciplinary and collaborative research environment with access to real-world industrial data and applications.

Please send your application (cover letter, academic CV, letter of motivation, degree certificates and transcripts of records from Bachelor/Master, names of potential academic referees) by
September 25 in a single PDF file (up to 10 MB) to Prof. Dr. Dirk Pflüger, Institute for Parallel and Distributed Systems, Universitätsstr. 38, 70569 Stuttgart, Germany, Dirk.Pflueger@ipvs.uni-stuttgart.de.

The University of Stuttgart is an equal opportunities employer. Applications from women are especially encouraged. Severely challenged persons will be given preference in case of equal professional qualifications.

Information according to article 13 of the General Data Protection Regulation (GDPR) for job application processes at University of Stuttgart can be found here: https://www.uni-stuttgart.de/en/privacy-notice/job-application/

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**Vergütung**

EG 13 TV-L

**Art der Beschäftigung**

Vollzeit

**Zeitraum der Beschäftigung**

initially for three years, as soon as possible

**Bewerbungsfristende**

Freitag, 25. September 2020 - 23:59

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**Kontakt**

**Vorname**

Dirk

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**Jetzt bewerben**

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**Link zu dieser Stellenanzeige:** https://www.stellenwerk-stuttgart.de/jobboerse/wissenschaftl-stellen-phd-student-mfd-data-science-machine-learning-scientific-computing-200902-396617#comment-0

Bitte beziehen Sie sich in Ihrer Bewerbung auf https://www.stellenwerk-stuttgart.de/