



TECHNISCHE  
UNIVERSITÄT  
WIEN  
Vienna University of Technology

The Research Unit [Applied Statistics \(ASTAT\)](#) of the Institute of Statistics and Mathematical Methods in Economics, TU Wien, the [Cyber-Physical System \(CPS\)](#) and [Formal Methods in Systems Engineering \(FORSYTE\)](#) research divisions of the Faculty of Informatics, TU Wien invite applications for a **Predoctoral Research Assistant** position to start tentatively in January 1, 2021 (negotiable).

The position is offered within the Vienna Science and Technology Fund (WWTF) funded research project *ProblnG: Distribution Recovery for Invariant Generation of Probabilistic Programs*. Probabilistic programs are computer programs with control flow statements that may choose probabilistically between several states and define a probability distribution over the possible final values of program variables. This project aims at developing novel and fully automated approaches to recover the value distribution of program variables, without any user guidance. Additional information about the project can be found at [https://www.wwtf.at/programmes/information\\_communication/ICT19-018/index.php?lang=EN](https://www.wwtf.at/programmes/information_communication/ICT19-018/index.php?lang=EN)

The contract is for 40h/week employment as a PhD candidate for up to 4 years. The monthly salary is currently (in accordance with TU Wien regulations) EUR 2.929,00 gross (14x per year).

**Responsibilities:** The student is expected to conduct research for the associated project in the inter-disciplinary field of mathematics and computer science. The research is expected to lead to peer-reviewed publications and a PhD dissertation.

**Requirements:** The successful candidate will have a completed master's degree or equivalent (e.g., Dipl.-Ing., Dipl.-Inf.), preferably with distinction, in one of the following fields: Statistics, Mathematics, Applied Mathematics or Computer Science, or equivalent university studies at home or abroad. Specifically, requirements include

- a successfully completed master's degree in mathematics/statistics/computer science
- a strong background in mathematics and statistics
- knowledge of formal modeling is desirable
- good command of the English language (German knowledge is not required)

**Application Information:** The application should include the following documents:

- Statement of Research Interests,
- Curriculum Vitae,
- Dissertation, thesis or Master thesis,
- Copies of academic credentials (with translation if not in English or German),

- Contact information of two referees or two reference letters.

Review of applications will begin immediately and continue until the position is filled.

Please send your application documents as a single PDF file via e-mail to [magdalena.mayr@tuwien.ac.at](mailto:magdalena.mayr@tuwien.ac.at) including a brief cover letter in the main body of the email with subject: Application for *WWTF predoc* position.

Vienna is a major metropolitan center rich in culture, excellent infrastructure and quality of living and the largest university city in the German-speaking world.

For further information, please contact Prof. Dr. Efstathia Bura ([efstathia.bura@tuwien.ac.at](mailto:efstathia.bura@tuwien.ac.at)).