Open PhD Position (TV-L E13)

Privacy-Preserving Computations

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Applications on large data sets, e.g., likes, usage-patterns, Smart Grid applications, or training machine learning models, often rely on large-scale statistics. If not carefully applied, these statistics reveal patterns of individuals that can be tracked by attentive attackers with some background knowledge. There is an active research community that seeks to find privacy-preserving approximations of statistics and computations.

The Privacy & Security group at University of Luebeck seeks to hire doctoral students for research in the one or more of the following areas:

- enhancing or attacking training-data-privacy in machine learning algorithms
- ensuring or attacking the robustness of machine learning algorithms
- privacy-preserving health applications (including epidemiological applications)
- privacy-preserving Smart Grid, Smart City applications
- anonymous communication

The ideal candidate for this position is an enthusiastic, outstanding student with a strong background and interest in one or more of the following areas:

- information security, differential privacy, or cryptography
- mathematical statistics and probability theory
- machine learning

Candidates with a strong theoretical background in related areas are also encouraged to apply. Formal requirements for doctoral students are a Master's or equivalent degree. The doctoral student will be a paid employee of University of Lübeck according to standard collective labour agreement regulations (TV-L E13, 100%), which compared to the local cost of living provides an attractive salary and attractive working conditions. We welcome applications independent of the applicant's age, sex, cultural or social background, religion, handicap, or sexual identity.

Applications should include a curriculum vitae, a brief description of research interests, transcripts of grades, 2-3 letters of recommendation from teachers or employers, and, if possible, the Master's or Bachelor's thesis and publications.

Contact for applications and informal inquiries. `privsec.bewerbungen@uni-luebeck.de`
Application deadline. 30 August 2020 (later applications might also be considered)
Starting date. 1 October 2020 (negotiable)

Privacy & Security group. The Privacy & Security group at the Institute for IT-security at the University of Lübeck works on researching privacy-preserving and robust methods to perform computations on large datasets such that the system work as expected and privacy of individuals is protected, including privacy-preserving machine learning, and anonymous communication.

City of Lübeck. The Hanseatic City of Lübeck has a popular old town that is part of the UNESCO-World heritage. Lübeck has a rich cultural life and with its location at the Baltic Sea and its closeness to Hamburg it offers various interesting opportunities for recreational activities.