



Bachelor or Master Thesis

Unleashing the Potential of Next Generation Privacy Enhancing Technologies for Smart Home Platforms

The Bosch IoT Lab is currently looking for students who want to write their bachelor or master thesis at the Institute of Technology Management about the application of Privacy Enhancing Technologies (PETs) for smart home platforms.

The introduction of new data privacy standards (e.g. GDPR) forces companies to protect the personal data of their customers. The increasing value creation through platform business models requires companies to share their customer data with platform partners in order to create value from it. Companies need to make sure that their data analysis processes are in line with the regulatory standards. PETs allow companies to share and analyse sensitive customer data while fulfilling data protection regulations. PETs like Secure Multi Party Computing are highly use case sensitive, their application for smart home platforms has to be evaluated based on concrete use cases (McWaters et al., 2019).

Scope of the thesis

To understand the potential application of secure multiparty computing for smart home platforms the following questions need to be answered:

- What are existing privacy issues for smart home platforms?
- Which privacy enhancing techniques exist and which features do they possess to solve privacy issues in general?
- Which of these privacy enhancing techniques can be applied to solve the identified privacy issues of smart home platforms?

What we offer at the Bosch IoT Lab:

- Access to data and IT specialists at the Bosch Group
- Qualitative research with a high practical relevance and impact
- Methodological support
- Working at the intersection of business and technology
- Helping to transform the businesses of leading global companies

Your profile

- Interests in understanding highly complex technical systems
- Interests for new data-driven business models and digital technologies (AI, IoT)
- Analytical thinking and a structured working approach
- Theoretical knowledge in IT, practical experiences in IT consultancies or in a corporate IT department is beneficial

Whom to contact?

To apply for this topic, please send an email to Fabian Schäfer (fabian.schaefer@unisg.ch) and attach your current CV, transcripts and mention your preferred starting date.