

Linz, January 2020

RE: Research Position – PhD Student

At the Institute of Networks and Security (<https://ins.jku.at>) at Johannes Kepler University Linz, we are looking to strengthen our project research team starting immediately. The Digidow research laboratory (<https://ins.jku.at/research/projects/digidow>) aims to develop architectures, protocols, and prototype implementations for future privacy-first digital identity for interactions in the physical world (e.g. door access control, border checks, public transit ticketing, or age verification). Our core project team should be strengthened by junior research assistants aiming to complete a PhD thesis as part of their project work. We offer a variety of different research focus areas including cryptographic protocol design and verification, secure code implementation and analysis with different languages, private location tracking and behavioral modelling, as well as biometric authentication. The project aims to create concrete prototype implementations in a living laboratory setting to demonstrate practical applicability.

Job Duties:

- Analyze and design security and/or privacy mechanisms (e.g. differential privacy, federated zero knowledge approaches, compiler based/static/dynamic code analysis, local/private location tracking models, formal protocol and code verification, metadata-hiding distributed networking, etc.)
- Publish and disseminate research findings in journals and present at conferences
- Complete a doctoral dissertation (highly desired)
- Co-supervise Bachelor's/Master's/Diploma theses
- Contribute to project management and administrative tasks

Your Qualifications:

- The successful candidate must hold a Master's degree in Computer Science
- Excellent programming skills, particularly with Java, C++, and/or modern systems languages like Kotlin or Rust
- Professional experience in computer security (e.g. through participation in CTF teams, relevant projects, network administration, etc.) and interest in working scientifically in this area
- Excellent command of English and willingness to learn German

The minimum salary for a full-time (40h/week) position in accordance with the collective agreement is € 2,864.50 gross per month (14 x per year, CA Job Grade: B1).

Prof. Rene Mayrhofer
Head of the Institute of
Networks and Security

P +43 732 2468 4121
F +43 732 2468 4125
rene.mayrhofer@jku.at

Office:

Severina Lachmair
Ext. 4120
severina.lachmair@jku.at

**JOHANNES KEPLER
UNIVERSITY LINZ**
Altenberger Str. 69
4040 Linz, Austria
www.jku.at
DVR 0093696