NEC Europe Ltd. is a subsidiary of NEC Corporation, a world leader in the computer and communications market with a large base of R&D Laboratories in Japan, China, USA, and Europe.

NEC

NEC Laboratories Europe has an opening for a

Internship on "Secure and Private Data Mining"
[ref: 2014-10-40-SEC]

Due to the proliferation of a myriad of interconnected devices (such as PCs, smartphones, smart sensors, smart appliances, etc.), recent studies show that the Internet is exponentially growing, day by day, generating massive amounts of data to be transmitted, stored and/or processed. Such phenomenon has been commonly called as the 'Big Data'.

And this Big Data poses a number of challenges requiring novel and advanced techniques to address them. Thus for instance, due to the huge volume of data to be handled in these systems, traditional data bases solutions might become obsolete and inadequate, especially when such data need to be classified or categorized, or when hidden patterns in the data need to be extracted. In those scenarios, advanced data correlation mechanisms have been successfully proposed.

Yet, there is another crucial aspect that must not be neglected, for the sake of a successful deployment and acceptance of these systems, namely, the privacy preservation of the sensitive data handled in there.

Thus, NEC Laboratories Europe is seeking enthusiastic students willing to explore and contribute to the field of Secure and Private Data Mining, by collaborating and participating in an established research team, proposing their own innovative approaches. Students will be requested to put a special emphasis on high-quality publications, patents and input for standards throughout their internship at NEC Laboratories Europe.

NEC Laboratories in Heidelberg (Germany) provides an excellent working environment supporting individual creativity as well as strong teamwork. Please send applications electronically via the applications web system **https://recruitment.nw.neclab.eu/** with reference to **[2014-10-40-SEC]**

For questions, please contact:
Joao Girao
Phone +49 6221 4342-0
joao.girao@neclab.eu
http://www.neclab.eu/jobs.htm

Desired knowledge and skills:
- Good knowledge of Machine Learning
- Security background (crypto, ids, etc)
- Good knowledge in programming languages
- Team working spirit
- Good communication skills in English

Benefits:
- Opportunity to obtain experience in an industrial working environment
- Chance to publish papers in international conferences
- Students receive common indemnification

Preferred starting date / duration:
Nov. 2014 or later, early start preferred / 6 months

This internship includes the following items:
- Analysis of the current state-of-the-art different solutions to tackle the problem of classifying/clustering remote data in a secure and privacy-preserving way
- Development of a novel mechanism to securely correlate private-sensitive data
- Investigate on how to allow data owners to influence the correlation mechanism by providing feedback to the system and/or fine tuning certain parameters
- Analyze the scalability, accuracy and security (amongst other parameters) of the proposed solution

NEC Europe Ltd., NEC Laboratories Europe, Kurfürsten-Anlage 36, 69115 Heidelberg, Germany, http://uk.nec.com/en_GB/emea/about/neclab_eu/