

NEC Laboratories Europe has an opening for an

Internship

“Microserver Networking and Virtualization”

[ref: 2015-01-44-NSDA]

Do you like toying around with Raspberry Pis, Intel Edisons, Wandboards, Cubietrucks and other types of single-board micro-computers? We are looking for a motivated student to carry out an internship or master thesis as part of our team in Heidelberg, Germany. The work will consist of benchmarking the performance of network processing functionality (e.g., switching, forwarding, firewalls, NATs, etc.), as well as looking into the possibility of running different virtualization technologies (e.g., Xen, KVM, containers) on a number of different micro-computers that will be provided by our lab. The aim is towards developing working prototypes and testing their performance with views towards publications, prototypes, demos and possibly productization (depending on progress).

The internship includes the following work items:

- Benchmarking the network performance of different kinds of micro-servers (ARM, MIPS64 and x86-based).
- Investigating the ability to run virtualization technologies on them
- Evaluating the performance of the micro-servers when running virtualized network processing

NEC Laboratories in Heidelberg (Germany) provides an excellent working environment supporting individual creativity as well as strong teamwork. All applications must be submitted via the following webpage: <https://recruitment.nw.neclab.eu/> with reference to **[2015-01-44-NSDA]**.

For questions, please contact:
Dr. Saverio Niccolini
Phone +49 6221 4342-0
<http://www.neclab.eu/jobs.htm>

Required skills/knowledge:

- Knowledge of systems programming in C and Linux; KVM or Xen internals are a plus
- Knowledge of operating systems design, virtualization principles and networking
- Kernel programming experience definitely a plus
- Good team spirit
- Good English communication skills

Benefits:

- Excellent opportunity to obtain experience in an industrial working environment
- Opportunity to publish papers in top tier international conferences
- Students receive common indemnification

Preferred starting date:

Any time, early start preferred

Duration:

Six months

If you have a suggestion for an alternate internship topic in the field that our group works in (e.g., see <http://cnp.neclab.eu/>), please send us email and we can discuss the possibility.

