

Netherlands:PhD candidate in programmable container networks

The [System and Network Engineering Lab](#) is one of the three largest research labs at the [Informatics Institute](#) of the [University of Amsterdam \(UvA\)](#). The SNE Lab conducts research on leading-edge computer systems of all scales, ranging from global-scale systems and networks to embedded devices. Across these multiple scales our particular interest is on extra-functional properties of computer systems, such as performance, energy consumption, reliability, programmability, productivity, trustability, and security.

Project description

The SNE Lab invites applications for a fully funded PhD position in the area of networking with focus on programmable networks. The PhD candidate will be embedded and contribute to the recently awarded SecConNet project.

The SecConNet project - Smart, Secure Container Networks for trusted Big Data Sharing - is funded by the JEDS 2017 program of NWO and eScience Center. The objective is to create infrastructure foundations for trusted Big Data sharing. The approach is to identify suitable models involving containers and high performance optical network technologies to create archetypes that can securely handle distributed Big Data applications.

In the project we research, develop and validate novel container network architectures, which rely on programmable infrastructures and virtualisation technologies across multiple administrative domains whilst maintaining quality and security requirements of requesting parties for both private sector and scientific use-cases.

SecConNet will research whether and how containers can be interconnected to deliver these different operational models, which in turn can support a plethora of distributed Big Data applications in domains such as life sciences, health and industrial applications. Research focus will lie on the use of semantic models to support the instantiation of container networks across domains.

Requirements

- MSC in computer science or computer engineering;
- prior expertise in one or more of the following fields: networking, SDNs, semantic modelling virtualization techniques.
- fluency in oral and written English is required as well as good presentation skills;
- strong programming skills in C, Java, Python and knowledge of Semantic Web is highly appreciated;
- work with a team of researchers.

Further information

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Appointment

The appointment will be full-time (38 hours a week) for a period of four years (initial employment is 18 months). Periodic evaluations will be held after 9 and 14 months, and upon positive evaluation, the appointment will be extended to a total of 48 months. The appointment must lead to a dissertation (PhD thesis). An educational plan that includes attendance of courses, summer and/or winter schools, and national and international meetings will be drafted for the PhD candidate. We also expect the PhD candidate to assist in teaching of undergraduate students.

The salary is in accordance with the university regulations for academic personnel. The salary will range from €2,222 (first year) up to a maximum of €2,840 (last year) before tax per month (scale P) based on a full-time appointment. There are also secondary benefits, such as 8% holiday allowance per year and the end of year allowance of 8.3%. The [Collective Labour Agreement for Dutch Universities](#) is applicable.

Among other things, we offer:

- competitive pay and good benefits;
- top-50 University worldwide;
- one of the best deep learning ecosystems in the world;
- interactive, open-minded and a very international city;
- excellent computing facilities.

English is the working language in the Informatics Institute. As in Amsterdam almost everybody speaks and understands English, candidates need not be afraid of the language barrier.

Job application

Applications may only be submitted by sending your application to application-science@uva.nl. To process your application immediately, please quote vacancy number 18-039. Applications must include a motivation letter explaining why you are the right candidate, curriculum vitae, (max 3 pages), a copy of your Master's thesis, a complete record of Bachelor and Master courses (including grades), a list of projects you have worked on (with brief descriptions of your contributions, max 2 pages) and the names and contact addresses of at least two academic references.

All these should be grouped in one PDF attachment.

The Committee does not guarantee that late or incomplete applications will be considered. Applications not mentioning vacancy number and the title of the position you are applying for in the subject-line will not be processed.

Tentative Submission Deadline : 26 February 2018

[Further Information](#)