

## RESEARCH POSITION AT NOKIA BELL LABS (ANTWERP)

### Bell Labs Researcher in Computer Science / Software Engineering

#### Work environment:

Bell Labs (<http://www.bell-labs.com>), the research organization within Nokia, is looking for a researcher in Computer Science / Software Engineering.

in the field of flexible service introduction & programming techniques for stream intensive services. You create new intellectual property through patents, research platforms, prototypes, libraries, .... And you act as prime reference in your field of expertise in close cooperation with business, academic and industrial partners.

The Real-Time Information Processing research activity is located in Antwerp (Belgium), and focuses on creating new technologies for the creation, expression, deployment, execution, and dynamic optimisation of stream intensive applications (M2M/Internet-of-things as well as media applications). These services, which span different types of interactions (real time data & event streams, protocol interactions, database interactions, ...), require an extremely high flexibility both in terms of programmability & customization as well as adaptability to the (live) real-world context.

You will be part of a highly skilled research team of computer scientists and engineers that works closely with the Nokia business units on new long term technologies that have the potential to impact the company's product roadmaps.

#### Goal:

As a senior computer scientist/software engineer, you will be creating new programming techniques and dynamic optimization approaches for the abovementioned class of applications (eg programmable data processing and analysis). Driven by the concrete and hard problem of generative programming and self-optimizing stream processing data flows, you will apply state-of-the-art technology and create new technologies where the state-of-the-art falls short. This includes techniques in software language design, knowledge representation and automated reasoning, compilers, code analysis and generation, software synthesis, constraint-satisfaction programming and model-driven software engineering.

Your research work will impact existing and future Nokia products. In addition, we are looking forward to new ideas to advance the state-of-the-art and create disruptive new products.

#### Your main responsibilities will include:

- Formulate and conduct research on the abovementioned research topics.
- Create proof-of-concept demonstrators and publish, present and convince others of your work.

#### We are looking for an experienced Computer Scientist / Software Engineer who:

- Is eager to join the Bell Labs research community
- Actively follows up technology trends and academic work in his/her field.
- Wants to work on concrete, hard problems, and delivers outstanding research result.
- Wants to create. Is active in prototype design & hands-on development (both conceptual and SW).

**Location:** Antwerp (Belgium)

**Technical background and experience:**

- You have a PhD degree or Master degree in Computer Science/Software Engineering. You have experience as a researcher, including active development of demonstrators in a combined role of expert and coach. You can conduct research from conceptualisation, SW prototyping up to writing patents & publications.
- You have solid experience in one or more of the following areas: query languages, knowledge representation and automated reasoning, compilers, code analysis and generation, software synthesis and model-driven software engineering, programming languages covering several methodologies (functional, imperative, declarative, logical,...), ...
- You have experience with building software involving a combination of open source frameworks and libraries.
- You can express yourself fluently in English, both verbally and in writing.

**Social Skills:**

- You are a quick learner, able to identify & research new technologies
- A positive, can-do attitude.
- You combine a personal drive with commitment to team objectives
- Creative, innovative thinking skills
- Capable of working autonomously

For more information, please contact **Lieven Trappeniers** [lieven.trappeniers@nokia.com](mailto:lieven.trappeniers@nokia.com)