PhD Position (Full-Time)

Trustworthy Software Engineering (TruX) Group, SnT – University of Luxembourg

Principal Investigator: Prof. Tegawendé F. Bissyandé

Co-advised by: Dr. Iyiola E. Olatunji

About the Group:
The Trustworthy Software Engineering (TruX) group conducts research at the intersection of software engineering and AI, with emphasis on software reliability, developer tooling, and data-driven methods for understanding and improving large software systems. We collaborate with academic and industrial partners and practice open science so results are broadly usable by the community.

Project Theme:
Bug Report Intelligence for the Generative AI Era (BRIDGE). Bug reports remain the primary feedback channel from users and operators to developers, yet they are often noisy, incomplete, and hard to act on. This PhD will explore methods to *turn unstructured bug reports into actionable insights* that connect to code, support diagnosis, and improve the speed and quality of fixes, ultimately helping establish better feedback loops between real-world failures and AI-assisted software development. The research will span natural-language processing (NLP) for software, learning representations that relate reports to code, lightweight runtime evidence collection, and developer-centered validation.

Your Role:

- Contribute to research projects aligned with the theme; publish at top venues in software engineering, NLP, and AI for code.
- Design, implement, and evaluate prototypes on real-world datasets (open-source and industry).
- Collaborate with international academics and industry partners; contribute to mentoring, community activities, and group events.

Supervision:
The successful candidate will work closely with **Prof. Tegawendé F. Bissyandé (PI)**, **Dr. Iyiola E. Olatunji** and other collaborators within the project.

Qualifications (Required):

- MSc in Computer Science/Software Engineering (or closely related field).
- Strong programming skills (e.g., Python) and familiarity with machine learning and/or software engineering workflows.
- Experience with empirical evaluation on code/data and version-controlled development (Git).
- Excellent written and verbal communication; ability to work in a diverse, collaborative environment.

Nice to have: background in NLP for software, program analysis, automated testing/repair, mining software repositories, or developer tooling research.

What We Offer:
A fully-funded PhD position within SnT (University of Luxembourg) in a dynamic, international research environment; compute and travel support; opportunities for research visits with academic collaborators; collaboration with industrial partners for real-world validation; strong open-science culture with releases of datasets, tools, and publications.

How to Apply:
Start date – Summer/Fall 2026 (earlier start possible).
Application review – Immediate, and tentatively until **31 January 2026** (or until filled).
Submit by email – emmanuel.olatunji@uni.lu with subject **"PhD Application – BRIDGE"**.
Package – CV; transcripts; brief research statement (1–2 pages); one or two research samples if available (e.g., thesis/paper/code); names and contact details of 2 referees.

Group – https://www.uni.lu/snt-en/research-groups/trux/

We welcome applications from all backgrounds and are committed to an inclusive, supportive research culture.