Faezeh KHORRAM
Research Engineer

Contact

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✉ khorram.faezeh@gmail.com

in faezeh-khorram

🌐 https://faezeh-kh.github.io/

Research publications: DBLP

📍 Grenoble, France

Skills

Languages: Java (+10 years), Python, Z3, BIP, UML, BPMN, OCL, Xtext, ALT, Epsilon, SQL

Frameworks and Tools: Eclipse Modeling Framework (EMF), Eclipse CDT, CBMC, JUnit, Git, VSCode, Docker, GEMOC studio

Expertise

- Problem Solving
- Critical Thinking
- Forward Thinking
- Teamwork
- Time Management

Languages

- English (Fluent)
- French (Fluent)
- Arabic (Basic)
- Persian (Native)

Reference

Ayoub Nouri

Team Lead, Huawei (Grenoble)

Email : ayb.nouri@gmail.com

PROFILE

R&D Research Engineer with expertise in requirements engineering, model-based design, development, verification, and validation of complex software-intensive systems. Experienced in building model simulators and code generators, with a Ph.D. in Software Engineering focused on testing frameworks for domain-specific languages. Proven ability to translate advanced research into scalable engineering solutions and to collaborate with international, cross-functional teams to deliver robust, high-quality products.

WORK EXPERIENCE

HUAWEI Technologies   2023 - PRESENT
Senior Research Engineer

- Designed and delivered production-grade modeling, code generation, and verification tooling on top of Eclipse for safety-critical domains, including network devices, power electronics, and wireless systems. Led the development of domain-specific languages (DSLs) and automated code generation pipelines, transforming high-level system models into validated C implementations, including seamless legacy code integration. Strengthened system reliability through formal verification, SMT-based reasoning, equivalence checking, and automated test case generation.
- Expanded work into AI system validation by investigating verification of LLM-generated responses using LLM-as-judge methodologies and neurosymbolic techniques grounded in formal methods. Known for continuously evaluating and adopting state-of-the-art technologies to solve complex engineering problems with the most effective and performant approaches.
- Collaborated closely with domain experts, led technical discussions, and delivered comprehensive documentation to ensure long-term maintainability and adoption.

Lowcomote European Project   2019 - 2022
Researcher on Software Engineering

- Implemented a novel generic testing framework for executable domain-specific languages on top of the Eclipse GEMOC Studio in Java
- Provided support for domain-specific test case definition, test execution and debugging, test result reporting, test coverage computation, automatic fault localization based on coverage, mutation analysis, and automated test amplification for regression testing
- Available on GitHub: https://github.com/Faezeh-Kh/Testing4DSLs

EDUCATION

PhD in Software Engineering   2019 - 2022
IMT Atlantique, Nantes, France
Proposed a testing framework for executable domain-specific languages
Earned the second place for the GDR-GPL 2022 thesis award

MSc in Software Engineering   2016 - 2019
Sharif University of Technology
Proposed a model-driven methodology for developing serious games in the context of business process education

BSc in Software Engineering   2012 - 2016
Shahrood University of Technology
Graduated with honors