NataStulova

contact

nata.stulova@pm.me

links

web:// **s0nata.github.io**
LinkedIn:// **nata-stulova**

education

PhD in Software, Systems and Computing *cum laude*
2014−2018
Technical University of Madrid (UPM)

MSc in Artificial Intelligence
2012−2013
Technical University of Madrid (UPM)

BSc in Systems Analysis
2008−2012
National Technical University of Ukraine "Kyiv Polytechnic Institute" (NTUU "KPI")

developement

Java, C++
Prolog
♥ bash, git
GitLab, Phabricator
Trello
LaTeX
WordPress

languages

native
Ukrainian
Russian
proficient
English
Spanish
intermediate
German
beginner
French
Hebrew

summary

I am a software engineering researcher developing tools to keep software and its specifications aligned. I am working with: requirement documents • code comments • formal specifications.

experience

Senior Researcher | University of Bern | 2020-2021　　　　　remote, Switzerland
requirements engineering > working on tool support for the RE tasks in agile software development:
· managed two projects in a team of four working on tool development
· co-authored several publications:
 − *Interactive Behavior-driven Development: a Low-code Perspective* (LowCode'21)
 − *First-class artifacts as building blocks for live in-IDE documentation* (under review)
software documentation > working on quality analysis and inconsistency detection:
· established a project collaboration between four research institutions
· worked with 4 different distributed R&D teams as team leader, manager, and engineer
· co-authored several publications:
 − *A Decade of Code Comment Quality Assessment: A Systematic Literature Review* (under review)
 − *Do Comments follow Commenting Conventions? A Case Study in Java and Python* (SCAM'21)
 − *RepliComment: Identifying Clones in Code Comments* (JSS volume 182)
teaching > at BSc and MSc levels at the university:
· developed from zero a series of practical algorithms and data structures lectures within the Software Skills Lab course (lecture slides and videos, assignments with solutions, exam)
· co-supervised several MSc and BSc theses
· gave guest lectures on programming languages, software verification, and UI design

Scientist | Swiss Federal Institute of Technology in Lausanne (EPFL) | 2019-2020　　Switzerland
source code analysis> worked on formal languages-based techniques for source code automatic documentation and summarization, exploring the potential of approaches based on natural language processing (NLP) to software documentation analysis:
· established a project collaboration between three research institutions
· co-authored the first project publication:
 − *Towards Detecting Inconsistent Comments in Java Source Code Automatically* (SCAM'20)

Research Engineer Assistant | IMDEA Software Institute | 2014-2018　　　　　Spain
software verification > worked on program specification languages and tools for specification-based software verification: how to write formal specifications of program behavior properties, how to check them at run time, and how to do this efficiently
· developed experimental extensions for the testing and verification frameworks of the Ciao programming language
· co-organized and ran the 15th International Colloquium on Implementation of Constraint and LOgic Programming Systems (CICLOPS'17)
· co-authored several publications:
 − *Static Performance Guarantees for Programs with Run-time Checks* (PPDP'18)
 − *Exploiting Term Hiding to Reduce Run-time Checking Overhead* (PADL'18)
 − *Some Trade-offs in Reducing the Overhead of Assertion Run-time Checks via Static Analysis* (SCP volume 155)
 − *Practical Run-time Checking via Unobtrusive Property Caching* (ICLP'15)
 − *Assertion-based Debugging of Higher-Order (C)LP Programs* (PPDP'14)

other qualifications

Development Volunteer, Business analyst, Project manager | Ksi Prostir | 2020-now　　Ukraine, remote
digital transformation > developing a website for a Dnipro-based cultural space KsiProstir. Initially I have worked on the initial requirements analysis, later I have switched to the no-code web development and maintenance.