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ANA JOVANOVIC

PROFESSIONAL SUMMARY

Bottom-line-focused cross-functional collaborator with PhD-level experience in research, data analysis, and documentation. Third-year Ph.D. candidate focusing on Software Engineering, more precisely on Formal Verification.

The majority of the research is done in a Linux environment, along with working in Alloy, Java, and Python. Much of my research includes software testing, debugging, and model-based testing.

SKILLS

Research | Data Analysis | Agile | Project Managing | Team Player | Leadership | Communication Skills | Negotiation | Problem Solver | Conflict Resolution

TECHNICAL EXPERTISE

Alloy | R | Java | Python | Software Testing | Debugging |Formal Verification | Model-based Testing | Statistical Analysis | Linux | SQL |

EXPERIENCE

KNOWLEDGE OF CURRENT INDUSTRY TRENDS | CROSS-FUNCTIONAL COLLABORATION | PROJECT MANAGEMENT

Gained as a *Graduate Research Assistant at" the University of Texas at Arlington" in Arlington, TX*

2021 – Present

- Lead student on a three-year, $490,000 grant from the National Science Foundation to explore testing software updates without testing unchanged parts of the code.
- Defined and analyzed refinements for automated input generation, mutation testing, and refining scenarios by size for Alloy language in 2 publications, 1 submitted publication, and 1 project that is currently in progress.

COMMUNICATION SKILLS | CONFLICT RESOLUTION | MARKET AND PRODUCT KNOWLEDGE

Gained as a *Graduate Teaching Assistant at " the University of Texas at Arlington" in Arlington, TX*

2020 – 2021

- Led a cross-functional group of undergraduate and graduate students and cultivated fundamental concepts of discrete structures.
- Demonstrated effective leadership which attributed to the overall GPA increase from 3.04 (calculated at the midterm) to 3.21 (calculated at the end of the semester)
- Articulated homework, projects, and exams and documented the results in spreadsheets, diagrams, and reports while advising students on how to improve.

PROJECTS

"TOWARDS AUTOMATED INPUT GENERATION FOR SKETCHING ALLOY MODELS"

https://allisonius.github.io/files/FormaliSE2022.pdf

Technical paper published in IEEE/ACM 10th International Conference on Formal Methods in Software Engineering

May 2022

- This project defined and characterized SketchGen2, an approach that looks to broaden the adoption of ASketch by increasing the automation of the inputs needed for the sketching process to the Alloy language. Experimental results show SketchGen2 is effective at producing both expressions and test suites for synthesis. The technique as well as the analysis and the results are provided in the publication.

"REACH: REFINING ALLOY SCENARIOS BY SIZE (TOOLS AND ARTIFACT TRACK)"

https://allisonius.github.io/files/ISSRE2022.pdf

Technical paper published in the 33rd IEEE International Symposium on Software Reliability Engineering

October 2022

- This project resulted in a publication that focuses on an enhancement to the Alloy language tool Analyzer which allows users to explore scenarios by size. Experimental results reveal Reach's enumeration improves performance while having the added benefit of maintaining a semi-sorted ordering of scenarios for the user.

MUTATION TESTING FOR TEMPORAL LOGIC

Technical paper submitted to a conference

April 2023

- This project resulted in a submitted publication. Its focus was on extending current mutation testing framework to account for temporal logic and enhancing the existing test generation capability.

EDUCATION

DOCTORATE, COMPUTER SCIENCE (SOFTWARE ENGINEERING)

Gained at *the University of Texas at Arlington* (Arlington, Texas)
Intended graduation term: May 2024, Current GPA: 3.57

BS IN COMPUTER SCIENCE

Gained at *University of Belgrade, Faculty of Organizational Sciences* (Belgrade, Serbia)
Attended: Oct 2014 – December 2019, GPA: 3.23

FINANCIAL ANALYST

Gained at *First Economics School* (Belgrade, Serbia)
Attended: Sept 2010 – Jun 2014, GPA: 3.97

TAPIA SCHOLARSHIP

Rewarded by UTA 2020

STUDENT ATHLETE

University volleyball team, won National Championship for University Volleyball in Belgrade, Serbia, 2017, 2018

ATHLETE

Volleyball team "Blok-aut", won Regional Championship for Regional Division of Belgrade, Serbia in Belgrade, Serbia, 2016