# Rrezarta Krasniqi
PHD CANDIDATE

✉ Rrezarta.Krasniqi@unt.edu
⊕ https://Rrezarta-Krasniqi.github.io

## EDUCATION

**University of North Texas** ................................................................. DENTON, TX
Ph.D., in Computer Science and Engineering ........................................ (EXPECTED MAY 2024)

| DISSERTATION: | Exploring the Software Quality Maze: Detecting Scattered and Tangled Quality Concerns in Source Code to Facilitate Maintenance and Evolution Tasks |
| --- | --- |
| ADVISOR: | Hyunsook Do |

**University of Notre Dame** ........................................................... NOTRE DAME, IN
M.S., in Computer Science and Engineering ....................................................... JAN 2021

| THESIS: | Detecting Emerging Quality-Related Concerns across Evolving Software Artifacts |
| --- | --- |
| ADVISOR: | Gregory Madey |

**University of Prishtina** ............................................................ PRISHTINA, KOSOVO
B.S., in Mathematics and Computer Science ..................................................... MAY 2006

## RESEARCH INTERESTS

Software Engineering, Requirements Engineering, Software Quality, Software Maintenance and Evolution, Natural Language Processing, Information Retrieval, Applied Machine Learning, Empirical Methodologies

## NOTABLE AWARDS

### Research and Education Grants

[1]. *Doctoral Research Support Grant*, The Toulouse Graduate School, University of North Texas ($500) .... 2023
[2]. *Texas Public International Education Grant*, University of North Texas ($2,500) ...................... 2023
[3]. *Women in STEM Grant*, Women and HI Tech ($2,500) ............................................. 2019

### Travel Grants

[1]. *CSE Travel Grant*, UNT Department of Computer Science and Engineering ($1,470) ................... 2023
[2]. *CENG Travel Grant*, The College of Engineering, University of North Texas ($750) ................... 2023
[3]. *TGS Travel Grant*, The Toulouse Graduate School, University of North Texas ($400) ................. 2023
[4]. *GHC Travel Grant*, UNT Department of Computer Science and Engineering ($1,500) ................. 2022
[5]. *COMPSAC Travel Grant*, UND Department of Computer Science and Engineering ($790) ............. 2021
[6]. *CRA-WP Travel Grant*, Grad Cohort Workshop on Widening Participation ($1,500) ................... 2021
[7]. *IDEALS Travel Grant*, Grad Cohort Workshop ($1,500) ............................................. 2020
[8]. *CRA-W Travel Grant*, Grad Cohort Workshop for Women ($1,500) ................................... 2019

### Honors and Awards

[1]. *Best Poster Award (3rd place)*, CMD-IT/ACM Richard Tapia Conference ($500) ..................... 2023
[2]. *NCWIT Collegiate Award* (finalist) ($150) ........................................................ 2023

[3]. *College of Engineering Department Award*, University of North Texas ($2,160) . . . . . . . . . . . . . . . . . . 2021-2023
[4]. *Tuition Benefit Program Award*, University of North Texas ($20,318) . . . . . . . . . . . . . . . . . . . . . . . . . . 2021-2023
[5]. *Graduate Student Success Award*, University of North Texas ($500) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2022
[6]. *Invitation to EMSE Journal, SANER'21 Special Issue for Top Papers $C_{[3]}$.* . . . . . . . . . . . . . . . . . . . . . . . . 2021
[7]. *GHC–Virtual*, UNT Department of Computer Science and Engineering ($200) . . . . . . . . . . . . . . . . . . . . . 2021
[8]. *3MT Doctoral Competition–People's Choice Award*, University of North Texas ($250) . . . . . . . . . . . . . . . . . 2021
[9]. *Excellence Award*, Ministry of Science, Education ans Technology, Kosovo ($2,000) . . . . . . . . . . . . . . . . . . 2009
[10]. *Certificate of Appreciation*, Midwestern State University . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2008
[11]. *Outstanding Graduate Woman*, Midwestern State University . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2008

## Scholarships and Fellowships

[1]. *Graduate Teaching Assistantship*, University of North Texas ($25,356) . . . . . . . . . . . . . . . . . . . . . . . . . . 2021-2024
[2]. *Teaching Fellow Scholarship*, University of North Texas ($1,000) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2022-2023
[3]. *Richard Tapia Scholarship*, Tapia Conference, Dallas, TX ($1,500) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2023
[4]. *Google Lime Scholarship*, Lime Connect and Google (semi-finalist) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2020
[5]. *Graduate Research Assistantship*, University of Notre Dame ($55,308) . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2017
[6]. *Jenkins & Roy Smith Scholarship*, Midwestern State University ($1,500) . . . . . . . . . . . . . . . . . . . . . . . . . . 2009
[7]. *McCoy School of Engineering Scholarship*, Midwestern State University ($1,000) . . . . . . . . . . . . . . . . . . . . . 2008
[8]. *Tom C. White Scholarship*, Midwestern State University ($1,500) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2008
[9]. *Graduate Teaching Assistantship*, Midwestern State University ($17,240) . . . . . . . . . . . . . . . . . . . . . . . . . . 2008

---

## PUBLICATIONS                                    (ORCiD ID: 0000-0001-6884-6131)

### Referred Journal Articles

[1]. Krasniqi, R., Do, H., "A Multi-Model Framework for Semantically Enhancing Detection of Quality-Related Bug Report Descriptions". Empirical Software Engineering (EMSE'23), 28, 1-62 pages, 2023. (⚲ **Invitation for a Special Issue to an EMSE Journal for Top Papers of SANER 2021**).

[2]. Krasniqi, R., Do, H., "Towards Semantically Enhanced Detection of Emerging Quality-Related Concerns in the Source Code," Software Quality Journal (SQJO'23), 1-51 pages, 2023.

[3]. Aljedaani, W., Krasniqi R., Aljedaani S., Mkouer M., Ludi, S., Al-Radadah K., "If Online Learning Works for You, What about Deaf Students?" Universal Access in the Information Society (UAIS'22), 1-20, 2022.

### Peer-Reviewed Conference Publications (Full Papers)

[1]. Krasniqi, R., Do, H., "A Hierarchical Topical Modeling Approach for Recommending Repair of Quality Bugs," *Proceedings of the $30^{th}$ IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER'23)*, Macao SAR, China, March 21-24, 2023.

[2]. Krasniqi, R., Do, H., "Automatically Capturing Quality-Related Concerns in Bug Report Descriptions for Efficient Bug Triaging," *Proceedings of the $23^{rd}$ International Conference on Evaluation and Assessment in Software Engineering (EASE'22)*, Research Track, Gothenburg, Sweden, June 13-15, 2022.

[3]. Krasniqi, R., Agrawal A., "Analyzing and Detecting Emerging Quality-Related Concerns across OSS Defect Report Summaries," *Proceedings of the $28^{th}$ IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER'21)*, Honolulu, HI, March 9-12, 2021.

[4]. Krasniqi, R., "Recommending Bug-fixing Comments from Issue Tracking Discussions in Support of Bug Repair," *Proceedings of the $45^{th}$ IEEE Annual Computers, Software, and Applications Conference (COMP-SAC'21)*, Madrid, Spain, July 12-16, 2021.

[5]. Stringfellow, C., Simpson, R., Enloe, K., <u>Krasniqi, R.,</u> Ngo, T., Keown, R., Hood, J.,"Solving T-Joint Problem in Reconstructing 2-D Objects," *Proceedings of International Conference on Image Theory and Applications (IPTA'10)*, Angers, France, May 17-21, 2010.

## Peer-Reviewed Conference Publications (Short Papers)

[1]. <u>Krasniqi, R.,</u> Do, H.,"Capturing Contextual Relationships of Buggy Classes for Detecting Quality-Related Bugs," *Proceedings of the 39$^{th}$ IEEE International Conference on Software Maintenance and Evolution (ICSME'23)*, NIER Track, Bogota, Colombia, October 1-6 2023.

[2]. <u>Krasniqi, R.,</u> "Detecting Scattered and Tangled Quality Concerns in Code to Aid Maintenance and Evolution Tasks," *Proceedings of the 45$^{th}$ IEEE/ACM International Conference on Software Engineering (ICSE'23)*, Doctoral Symposium Track, Melbourne, Australia, May 14-20, 2023.

[3]. <u>Krasniqi, R.,</u> Cleland-Huang, J., "Enhancing Source Code Refactoring Detection with Explanations from Commit Messages," *Proceedings of the 27$^{th}$ IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER'20)*, ERA Track, London, ON, February 18-21, 2020.

[4]. <u>Krasniqi, R.,</u> McMillan, C., "TraceLab Components for Generating Speech Act Types in Developer Question/Answer Conversations," *Proceedings of the 34$^{th}$ IEEE International Conference on Software Maintenance and Evolution (ICSME'18)*, Artifacts Track, Madrid, Spain, September 23-29, 2018.

[5]. <u>Krasniqi, R.,</u> Jiang, S., McMillan, C., "TraceLab Components for Generating Extractive Summaries of User Stories," *Proceedings of the 33$^{rd}$ IEEE International Conference on Software Maintenance and Evolution (ICSME'17)*, Artifacts Track, Shanghai, China, September 17-24, 2017.

## Peer-Reviewed Workshop Publications

[1]. <u>Krasniqi, R.,</u> Do, H., "Generalizability of NLP-based Models for Modern Software Development Cross-Domain Environments," *Proceedings of the 2$^{nd}$ IEEE International Workshop on Natural Language-based Software Engineering (NLPBSE'23)*, co-located with ICSE, Melbourne, Australia, May 14-20, 2023.

[2]. <u>Krasniqi, R.,</u> "Extractive Summarization of Related Bug-fixing Comments in Support of Bug Repair," *Proceedings of the 2$^{nd}$ IEEE International Workshop on Automated Program Repair (APR'21)*, co-located with ICSE, Madrid, Spain, June 1, 2021.

## Poster Presentations

[1]. <u>Krasniqi, R.,</u> "Extracting Crosscutting Comment Discussions from Issue Tracking Systems in Support of Bug Repair" *Presented at the CMD-IT/ACM Richard Tapia Conference, Gaylord Texan Resort & Convention*, Grapevine, TX, Sept 13, 2023. (**♟ Best Poster Award**)

[2]. <u>Krasniqi, R.,</u> "Leveraging Feature Selection Models for Effective Triaging of Quality Bugs," *Presented at UNT Engineering Research Showcase Competition*, Denton, TX, Mar 30, 2023.

[3]. <u>Krasniqi, R.,</u> "A Context-Aware Detection of Quality Concerns for Enhancing Explainability of Systems," *Presented at the Federation Graduate Student Research Symposium*, Denton, TX, Apr 22, 2022.

[4]. <u>Krasniqi, R.,</u> "Towards Semantic-Based Detection of Crosscutting Software Quality Concerns across Codebase," *Presented at the UNT Engineering Research Showcase Competition*, Denton, TX, Apr 14, 2022.

[5]. <u>Krasniqi R.,</u> "Extractive Summarization of Related Bug-fixing Comments in Support of Bug Repair," *Poster presented at the Grad Cohort Track (CRA-WP)*, New Orleans, LA, Apr 24, 2021.

[6]. <u>Krasniqi R.,</u> "Enhancing Code Refactoring Detection with Explanations from Commit Messages," *Poster presented at the Grad Cohort Track (CRA-IDEALS)*, Austin, TX, Mar 6, 2020.

## THESIS AND DISSERTATION

<u>Krasniqi, R.,</u> "Detecting Emerging Quality-Related Concerns Across Evolving Software Artifacts," MS Thesis, University of Notre Dame, November 2020. [**Public Source**]

# RESEARCH EXPERIENCE

RESEARCH ASSISTANT, *University of North Texas* ........................................... JAN'21–PRESENT
*Department of Computer Science and Engineering* ............................................... DENTON, TX

AUTOMATED UNTANGLING OF QUALITY CONCERNS FROM THE SOURCE CODE CHANGESETS: Developed an automated technique to untangle complex changesets that involve quality concerns and related code components with multiple dependencies, evaluating its effectiveness through both quantitative and qualitative analysis.

SEMANTICALLY ENHANCING DETECTION OF CROSSCUTTING QUALITY CONCERNS IN THE SOURCE CODE: Developed an approach for extracting quality concerns from source code using a comprehensive three-pronged technique. This involved integrating various NLP-based techniques, including a graph-based model (TextRank), a statistical-based model (TF-IDF), and a feature-based model (Yake), to generate summaries of code segments pertaining to quality concerns. Furthermore, I enhanced the existing model by incorporating a comprehensive 3D visualization mechanism, enabling efficient tagging and mapping of quality concerns within the codebase.

A MULTI-MODEL FRAMEWORK FOR ENHANCING DETECTION OF QUALITY BUG REPORT DESCRIPTIONS: Developed a multi-model approach that efficiently captures lexical, shallow, and semantic features from concise bug report descriptions. By leveraging the augmented BERT model and triplet augmentation, this technique automates the detection of quality concerns. These concerns align with the FURPS and ISO standard categories. Furthermore, I employed content analysis to manually label 5400 bug reports and designed a catalog of rules to be used for labeling of the dataset. This step enforced the rigorous evaluation of our classifier.

HIERARCHICAL CLUSTERING OF QUALITY CONCERNS AND CONTEXT-AWARE FIXING OF QUALITY BUGS: Developed a probabilistic approach to detect hidden semantic structures of quality-related concerns in source code for bug repair. Applied Hierarchical Dirichlet Process (HDP) to capture scattered quality concerns and aggregated them into a meaningful hierarchy, revealing candidate classes for quality bug repair.

AUTOMATICALLY CAPTURING QUALITY CONCERNS IN BUG REPORTS FOR EFFICIENT BUG TRIAGING: Developed a quality-based classifier using feature selection techniques, including TF-IDF, Chi-Square ($\chi^2$), Mutual Information, and Extra Randomized Trees. This classifier incorporates various machine learning algorithms to efficiently triage quality bugs, ensuring effective identification and prioritization.

TOWARDS SYSTEMATIC INTEGRATION OF TEAM VOCABULARY FOR DEMARCATING REQUIREMENTS: I conducted an empirical case study involving senior undergraduate students, focusing on exploring the vocabularies developed by teams during maintenance tasks associated with quality concerns.

CHALLENGES AND PERCEPTIONS IN EXPLORING QUALITY CONCERNS DURING SOFTWARE DEVELOPMENT: Conducted a comprehensive survey study comprising 58 questions to reveal both common and unique challenges faced during the tasks of searching, understanding, and maintaining quality concerns.

RESEARCH ASSISTANT, *University of Notre Dame* ............................................ JAN'17–DEC'20
*Department of Computer Science and Engineering* ........................................... NOTRE DAME, IN

ANALYSIS AND DETECTION OF EMERGING QUALITY-RELATED CONCERNS IN DEFECT REPORTS: Developed a classifier that extracts lexical, shallow, and semantic features from bug reports to detect quality concerns. Additionally, annotated 5,400 bug reports according to the FURPS quality model and the ISO 25010 standard. I also, incorporated a visualization mechanism to tag and map quality-related concerns in the codebase.

EXTRACTIVE CODE SUMMARIZATION FOR RECOMMENDING BUG REPAIR: Developed a tool referred to as RetroRank, a GUI-based extractive summarization tool that recommends bug-fixing comments from discussion threads of previously fixed bugs to address unresolved bugs. RetroRank recommends bug-fixing comments based on user query relevance, positive language (sentiment analysis), and semantic relevance among comments.

ENHANCING SOURCE CODE REFACTORING DETECTION WITH EXPLANATIONS FROM COMMIT MESSAGES: Developed a technique that enhances code refactoring by augmenting contextual information from code commits and source code. This augmentation enhance the completeness of refactoring detection and provides refactoring rationales generated from commit messages.

---

TraceLab Artifacts for Reproducing Empirical Software Engineering Research: Built TraceLab artifacts to improve software traceability across software engineering tasks. Developed reproducibility packages for generating extractive summaries for user stories and speech act types in developer question/answer conversations. These packages can also easily modify, so that future researchers can build improvements over our approaches.

Research Assistant, *Midwestern State University* ........................................Jan'07–Dec'09
*Department of Computer Science and Mathematics* ....................................Wichita Falls, TX

T–Joint Problem in Reconstructing 2D Objects: Participated in an automatic 2D jigsaw puzzle reconstruction project for reassembling archaeological fragments with T-Joint pieces. Developed a corner point detection algorithm for matching and reassembling archaeological fragments. Translated existing MatLab code to C# code and improved the thinning algorithm for increased efficiency.

## TEACHING EXPERIENCE

Teaching Fellow, *University of North Texas* ...........................................Aug'22–May'23
*Department of Computer Science and Engineering* ........................................Denton, TX

CSCE5933–Topics in Computer Science and Engineering, Spring 2023 | Class Size: 9 | Student Responses: 7
*Teaching Effectiveness*: 4.8/5.0 | *Overall Quality*: 4.7/5.0 | *Difficulty*: 5.8/7.0 |

CSCE4357–Database Systems Security, Spring 2023 | Class Size: 5 | Student Responses: 5
*Teaching Effectiveness*: 4.8/5.0 | *Overall Quality*: 4.7/5.0 | *Difficulty*: 5.8/7.0 |

CSCE3444–Software Engineering, Fall 2022 | Class Size: 10 | Student Responses: 3
*Teaching Effectiveness*: 5.0/5.0 | *Overall Quality*: 4.6/5.0 | *Difficulty*: 4.3/7.0 |

Teaching Assistant, *University of North Texas* ........................................Jan'21–May'24
*Department of Computer Science and Engineering* ........................................Denton, TX

CSCE5430–Software Engineering, Fall 2023 | Class Size: 130

CSCE5460–Software Testing and Empirical Methodologies, Spring 2022 | Class Size: 28

CSCE5200–Information Retrieval and Web Search, Summer 2022 | Class Size: 66

CSCE5430–Software Engineering, Fall 2021 | Class Size: 182

CSCE3444–Software Engineering, Summer 2021 | Class Size: 74

CSCE4901–Software Development Capstone I, Spring 2021 | Class Size: 86

Teaching Assistant, *University of Notre Dame* .........................................Aug'19–Dec'20
*Department of Computer Science and Engineering* .......................................Notre Dame, IN

CSE40793–Software Development Practices, Fall 2020 | Class Size: 44

CSE40793–Principles and Practices of Software Development, Fall 2019 | Class Size: 48

Computer Science Instructor, *Texas Tech University* ..................................Sept'15–Dec'16
*Department of Computer Science* .......................................................Lubbock, TX

CS3383–Theory of Automata, Summer 2016 | Class Size: 12

CS3361–Concepts of Programming Languages, Spring 2016 | Class Size: 32

CS4352–Operating Systems, Spring 2016 | Class Size: 46

CS2413–Data Structures (C Programming), Spring 2016 | Class Size: 31

CS2413–Data Structures (C++ Programming), Fall 2015 | Class Size: 36

GRE/GMAT Instructor, *Rochester Institute of Technology/A.U.K* ........................Mar'15–Aug'15
*Leadership Program—Immersion and Public Service Courses* ..............................Prishtina, Kosovo

> GR18FZ–GRE and GMAT Preparatory Exam, Summer 2015 | Class Size: 20–30

> RM28FZ–Remedial Math, Summer 2015 | Class Size: 20–30

> DS18FZ–Discovery, Summer 2015 | Class Size: 20–30

Teaching Assistant, *Midwestern State University* ..........................................Aug'07–Dec'09
*Department of Computer Science and Mathematics* .....................................Wichita Falls, TX

> MATH1634–Calculus I, Fall 2008 | Class Size: 28

> MATH2534–Calculus III, Fall 2008 | Class Size: 20

> MATH3433–Differential Equations, Spring 2008 | Class Size: 28

> CMPS1033–Computing for Science Majors, Spring 2007 | Class Size: 36

> CMPS1013–Computer Concepts and Applications, Spring 2007 | Class Size: 32

High School Math and Computer Science Teacher, *American School of Kosova* ........Oct'06–Jun'07
*Mathematics and Computer Science Division* ...........................................Prishtina, Kosovo

> Algebra II and Advanced Algebra II, Fall 2006 | Class Size: 32–42

> Introduction to Computer Science, Fall 2006 | Class Size: 20–34

> Web Design and Computer Applications Fall 2006 | Class Size: 20–34

High School Math Teacher, *Gymnasium "Kuvendi i Arberit"* ...........................Dec'05–Aug'06
*Mathematics Division* ..................................................................Ferizaj, Kosovo

> Calculus I and Calculus II, Fall 2005 | Class Size: 30–38

> Geometry I and Geometry II, Fall 2005 | Class Size: 30–38

> Linear Algebra, Spring 2006 | Class Size: 30–38

> Statistics and Theory of Probability, Spring 2006 | Class Size: 30–38

Guest Lectures

> CSCE3444–Software Engineering, "Refactoring of Object-Oriented Code and Detection of Code Smells,"
> *University of North Texas*, Department of Computer Science and Engineering .................Jul 14TH, 2021

> CSCE3444–Software Engineering, "Software Evolution and Maintenance–A Developer's Mindset,"
> *University of North Texas*, Department of Computer Science and Engineering .................Jul 12TH, 2021

> CSCE3444–Software Engineering, "The Interplay between Functional and NFRs in Agile Projects,"
> *University of North Texas*, Department of Computer Science and Engineering .................Jun 14TH, 2021

> CSE40793–Software Development Practices, "Learning Code Smells for Leveling Up Code Quality,"
> *University of Notre Dame*, Department of Computer Science and Engineering .................Nov 6TH, 2020

> CSE40793–Software Development Practices, "The Model–Driven Testing and Design Processes,"
> *University of Notre Dame*, Computer Science and Engineering ...............................Oct 27TH, 2020

> CS4365–Software Engineering II, "Introduction to Software Testing: Graph–Based Coverage Criteria,"
> *Texas Tech University*, Department of Computer Science ....................................Oct 8TH, 2015

> CS4365–Software Engineering II, "Introduction to Software Testing: Software Testing Terminology,"
> *Texas Tech University*, Department of Computer Science ....................................Sep 10 TH, 2015

## CONFERENCE TALKS

Krasniqi R., "Capturing Contextual Relationships of Buggy Classes for Detecting Quality-Related Bugs"
(ICSME, NIER Track), BOGOTA, COLUMBIA ..................................................... Oct $5^{th}$, 2023

Krasniqi, R., "Detecting Scattered & Tangled Quality Concerns in Code to Aid Maintenance & Evolution Tasks"
(ICSE, Doctoral Track), MELBOURNE, AUSTRALIA ........................................... May $16^{th}$, 2023

Krasniqi R., "Hierarchical Topical Modeling Approach for Recommending Repair of Quality Bugs"
(SANER, Research Track), MACAO SAR, CHINA ............................................. Mar $23^{rd}$, 2023

Krasniqi, R., "Generalizability of NLP Models for Modern Software Development Cross-Domain Environments"
(NLPBSE, Workshop Track), MELBOURNE, AUSTRALIA ..................................... May $20^{th}$, 2023

Krasniqi R., "Automatically Capturing Quality Concerns in Bug Report Descriptions for Efficient Bug Triaging"
(EASE, Research Track), GÖTEBORG, SWEDEN .............................................. Jun $15^{th}$, 2022

Krasniqi R., "Recommending Bug-fixing Comments from Issue Discussions in Support of Bug Repair"
(COMPSAC, Research Track), MADRID, SPAIN .............................................. Jul $15^{th}$, 2021

Krasniqi R., "Extractive Summarization of Related Bug-fixing Comments in Support of Bug Repair"
(APR, Workshop Track), MADRID, SPAIN ..................................................... Jun $1^{st}$, 2021

Krasniqi R., "Analyzing and Detecting Emerging Quality-Related Concerns across OSS Defect Reports"
(SANER, Research Track), HONOLULU, HI .................................................. Mar $10^{th}$, 2021

## INVITED TALKS

PANEL

*Topic:* Interested in Pursuing a Ph.D: What it's all About?
*Event:* CSE Seminar Series, University of North Texas, Denton, TX ......................... Mar $21^{ST}$, 2023

SPEAKER

*Topic:* Detecting Scattered & Tangled Quality Concerns in Source Code to Aid Maintenance & Evolution Tasks
*Event:* Tapia Doctoral Consortium, Gaylord Texan Resort & Convention, Grapevine, TX .... Sep $13^{NTH}$, 2023

## PRESS COVERAGE

CSE Ph.D Student Recognized as NCWIT AiC Finalist for Research on New Approach to Source Code Detection
DENTON, TX, MAY $23^{rd}$, 2023 ............................................................... [**Press Link**]

UNT Engineering Grad Student Receives 3MT People's Choice Award
DENTON, TX, DEC $9^{th}$, 2021 ................................................................ [**Press Link**]

## MENTORSHIP EXPERIENCE

ANITAB.ORG, MENTORING PROGRAM
Reini Lin, *(1 on 1) Mentoring* ................................................................. 2023

UNIVERSITY OF NORTH TEXAS, UNDERGRADUATE MENTORING
Blessing Sundire, *Senior Thesis* ............................................................. 2021

UNIVERSITY OF NOTRE DAME, UNDERGRADUATE MENTORING
Yalin Luo, *Senior Thesis* ................................................................... 2020

## INDUSTRY EXPERIENCE

JAVA DEVELOPER II ....................................................................... NOV'12–APR'13
*Highmark Inc.* ........................................................................... PITTSBURGH, PA

Contributed to back-end enhancement of Highmark healthcare system. Participated in the development of the core features to incorporate SDLC standards. Assisted in technical walkthroughs and provided coding specifications, requirements, and documentation for new releases of Highmark's online patient healthcare platform.

SOFTWARE DEVELOPER ................................................................... SEPT'10–NOV'12
*United States Steel Corporation* ......................................................... PITTSBURGH, PA

Implemented and provided support for Oracle Reports/XML Publisher applications utilized by business users in an enterprise resource planning project. Maintained the Processor Profile application and ensured the smooth functioning of related programs to avoid disruptions to business operations. Troubleshot and resolved tickets by offering both technical and non-technical solutions.

## PROFESSIONAL SERVICE

INVITED JOURNAL REVIEWER

*Reviewer*, Software Quality Journal (SQJO) ............................................................. 2023
*Reviewer*, Journal of Software: Evolution and Process (JSEP) ........................................... 2023
*Reviewer*, Journal of Software: Testing Verification and Reliability (JSTVR) ............................ 2022

INVITED PROGRAM COMMITTEE

*PC Member*, International Conference on Software Engineering (ICSE) ................................... 2024
*PC Member*, International Conference on Software Analysis, Evolution and Reengineering (SANER) ...... 2024
*PC Member*, International Conference on Software Engineering for Artificial Intelligence (CAIN) .... 2023–2024
*PC Member*, International Conference on Evaluation and Assessment in Software Engineering (EASE) .... 2023
*PC Member*, International Conference on Mobile Software Engineering and Systems (MOBILESoft) . 2022-2023
*PC Member*, International Conference on Mining Software Repositories (MSR) ...................... 2022-2023

INVITED EXTERNAL REVIEW COMMITTEE

*Reviewer*, NCWIT Aspirations in Computing (AiC) ..................................................... 2023
*Reviewer*, Graduate Women in Science National Fellowship (GWIS) ............................... 2020–2022
*Reviewer*, International Conference on Requirement Engineering (RE) ................................... 2020

INVITED ORGANIZING COMMITTEE

*Session Chair*, International Conference on Software Engineering for Artificial Intelligence (CAIN) ........ 2023
*Virtualization Chair*, International Conference on Automation of Software Test (AST) ................... 2022

INVITED STUDENT VOLUNTEER

*Student Volunteer*, IEEE International Conference on Software Architecture (ICSA) ..................... 2022
*Student Volunteer Chair*, IEEE International Conference on Evaluation and Assessment in SE (EASE) ....2021

OUTREACH AND LEADERSHIP

*Student Volunteer*, Texas CSTA Chapters Conference and Digital Divas (UNT) ..................... 2021-2023
*Activity Instructor*, Design Your World STEM Conference for Girls (SWE–Dallas) ................. 2021–2023

*Coding Instructor*, South Bend Code School (K$_{13}$–K$_{18}$) ................................................2020–2021

*STEM Volunteer Mentor*, Association for Women in Science (AWIS–UND) ..........................2017–2021

*STEM Volunteer Mentor*, Math, Science and, U Junior High School Conference for Girls (MWSU) ..2007–2009

## PROFESSIONAL AND ACADEMIC ASSOCIATIONS

PROFESSIONAL MEMBERSHIPS

Institute of Electrical and Electronics Engineers (IEEE) ...........................................(since 2018)

Association for Computing Machinery (ACM) ...................................................(since 2017)

ACADEMIC MEMBERSHIPS

Society of Women Engineers (SWE–UNT) .....................................................(2021–2024)

Society of Women Engineers (SWE–UND) .....................................................(2018–2021)

Association for Women in Science (AWIS-UND) ...............................................(2018–2021)

Women and Hi Tech ..........................................................................(2018–2021)

## TECHNICAL SKILLS

Java/Oracle Technologies ..............................J2SE, Servlets, JSP, Jax-RS, Oracle Forms ans Reports

Programming Languages ................................................................Java, C, C++, C#

Scripting Languages ...........................................Python, JavaScript, Perl, Bash, MatLab, R

Markup Languages .......................................HTML, XHTML, XML, JSON, Markdown, LaTeX

Database Languages ................................................PL/SQL, SQL, SQL Database Queries

Servers and Architectures .....................Apache Tomcat, Web/Restful Services, Oracle VM, MVC, SOA

Development Platforms .................Eclipse IDE, InteliJ IDEA, pyCharm, Jupyter, Dreamweaver, RStudio

Data Mining Platforms ............................... Aqua Data Studio, MySQL Workbench, Orange3, Weka

Operating Systems ..........................................Linux, Ubuntu, Apple Mac OS, Windows XP

User Study Platforms ..............................MAXQDA Analytics, Amazon Mechanical Turk, Qualtrics

## LANGUAGE SKILLS

Albanian ...................................................................................Native

English ................................................................................Proficient

Spanish ................................................................................Proficient

Croatian ...............................................................................Advanced

## ADDITIONAL INFORMATION

Google Scholar ........................... https://scholar.google.com/citations?user=r_Wi0GYAAAAJ&hl=en

Semantic Scholar ....................... https://www.semanticscholar.org/author/Rrezarta-Krasniqi/29449864

DBLP ...................................................... https://dblp.org/pid/208/6990.html

ORCiD ..................................................... https://orcid.org/0000-0001-6884-6131

IEEE Digital Library ...................................... https://ieeexplore.ieee.org/author/37086256828

ACM Digital Library ........................................ https://dl.acm.org/profile/99660481118

Research Gate ...................................... https://www.researchgate.net/profile/Rrezarta_Krasniqi

LinkedIn ............................................... https://www.linkedin.com/in/RrezartaKrasniqi/

Twitter .................................................................... https://twitter.com/Rr_Krasniqi