# RREZARTA KRASNIQI, Ph.D.

Assistant Professor Department of Software and Information Systems College of Computing and Informatics University of North Carolina at Charlotte  $\ensuremath{\bigodot}$ 9201 University City Blvd, Charlotte, NC 28223

₩ Woodward, 333G

- https://rrezarta-krasniqi.github.io

## **EDUCATION**

University o	University of North Texas	
$\mathrm{May}\ 2024$	Ph.D., in Computer Science and Engineering	
	Dissertation: Exploring the Software Quality Maze: Detecting Scattered and Tangled Crosscutting Quality Concerns in Source Code in Support of Maintenance Tasks	
University of Notre Dame		
$\mathrm{Jan}\ 2021$	M.S., in Computer Science and Engineering	
	Thesis: Detecting Emerging Quality-Related Concerns across Evolving Software Artifacts	
Midwestern	STATE UNIVERSITY	
May 2010	M.S., in Computer Science	
University of Prishtina		
May 2006	B.S., in Mathematics and Computer Science	

# RESEARCH INTERESTS

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

## PROFESSIONAL APPOINTMENTS

University of North Ca	AROLINA AT CHARLOTTE
Jul 2024 – Present	Assistant Professor
II N T	
UNIVERSITY OF NORTH TE	EXAS DENTON, TX, USA
$Jan\ 2021-May\ 2024$	Teaching Assistant
$Jan\ 2022-May\ 2023$	Teaching Fellow
University of Notre Da	AME
Aug 2019 - Dec 2020	Teaching Assistant
Jan 2017 - Dec 2019	Research Assistant

TEXAS TECH UNIVERSITY	YLubbo	CK, TX, USA
Sept 2015 – Dec 2016	Computer Science Instructor	
Rochester Institute o	OF TECHNOLOGY/A.U.KPRISH	TINA, Kosovo
Mar 2015 – Aug 2015	${ m GRE}/{ m GMAT}$ Instructor	
HIGHMARK INC	PITTSBUR	RGH, PA, USA
Nov 2012 – Apr 2013	Java Developer II	
United States Steel C	CorporationPittsbur	RGH, PA, USA
Sept 2010 – Nov 2012	Software Developer	
Midwestern State Uni	versity Wichita Fai	LLS, TX, USA
Aug 2007–Dec 2009	Teaching Assistant	
NOTABLE AWARDS		
RESEARCH AND EDUCATI	ION GRANTS	
Doctoral Research Supp	ort Grant, The Toulouse Graduate School, University of North Texas (\$5	00) 2023
Texas Public Internation	nal Education Grant, University of North Texas (\$2,500)	2023
Women in STEM Grant	s, Women and HI Tech (\$2,500)	2019
TRAVEL GRANTS		
CSE Travel Grant, UNT	T Department of Computer Science and Engineering (\$1,470)	2023
CENG Travel Grant, Th	ne College of Engineering, University of North Texas (\$750)	2023
TGS Travel Grant, The	Toulouse Graduate School, University of North Texas (\$400)	2023
GHC Travel Grant, UN	T Department of Computer Science and Engineering (\$1,500)	2022
COMPSAC Travel Gran	nt, UND Department of Computer Science and Engineering (\$790)	2021
CRA-WP Travel Grant,	Grad Cohort Workshop for Women on Widening Participation $(\$1,500)$	2021
IDEALS Travel Grant, G	Grad Cohort Workshop (\$1,500)	2020
CRA-W Travel Grant, O	Grad Cohort Workshop for Women (\$1,500)	2019
Honors and Awards		
Tuition Benefit Program	Award, University of North Texas (\$21,068)	2021-2024
College of Engineering I	Department Award, University of North Texas (\$3,160)	2021-2024
Best Poster Award, CM	D-IT/ACM Richard Tapia Conference (\$500)	2023
NCWIT Collegiate Awar	rd (finalist) (\$150)	2023
Graduate Student Succe	ess Award, University of North Texas (\$500)	2022
Invitation for EMSE Spe	ecial Issue for Top Best Paper of SANER'21	2021
GHC-Virtual, UNT Dep	partment of Computer Science and Engineering (\$200)	2021
3MT Doctoral Competit	tion—People's Choice Award, University of North Texas (\$250)	2021

	Excellence Award, Ministry of Science, Education and Technology, Rosovo (\$2,000)	. 2009
	Certificate of Appreciation, Midwestern State University	. 2008
	Outstanding Graduate Woman, Midwestern State University	. 2008
S	CHOLARSHIPS AND FELLOWSHIPS	
	Graduate Teaching Assistantship, University of North Texas $(\$25, 356)$	1-2024
	Teaching Fellow Scholarship, University of North Texas (\$1,000)	2-2023
	Richard Tapia Scholarship, Tapia Conference, Dallas, TX (\$1,500)	. 2023
	Google Lime Scholarship, Lime Connect and Google (semi-finalist)	. 2020
	Graduate Research Assistantship, University of Notre Dame ( $\$55,308$ )	. 2017
	Jenkins & Roy Smith Scholarship, Midwestern State University (\$1,500)	. 2009
	McCoy School of Engineering Scholarship, Midwestern State University (\$1,000)	. 2008
	Tom C. White Scholarship, Midwestern State University (\$1,500)	. 2008
	Graduate Teaching Assistantship, Midwestern State University (\$17,240)	. 2008

#### **PUBLICATIONS**

ORCiD ID: 0000-0001-6884-6131)

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#### 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 for Top Best 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 (SQJ'23), 1-51 pages, 2023.
- [3] Aljedaani, W., <u>Krasniqi R.</u>, 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<sup>th</sup> IEEE International Conference on Software Analysis, Evolution and Reengineering

  (SANER'23), Macao SAR, China, March 21-24, 2023.
- [2] <u>Krasniqi, R.,</u> Do, H., "Automatically Capturing Quality-Related Concerns in Bug Report Descriptions for Efficient Bug Triaging," *Proceedings of the 23<sup>rd</sup> 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<sup>th</sup> 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<sup>th</sup> IEEE Annual Computers, Software, and Applications Conference (COMP-SAC'21), Madrid, Spain, July 12-16, 2021.
- [5] Stringfellow, C., Simpson, R., Enloe, K., Krasniqi, R., 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] Krasniqi, R., Do, H., "Capturing Contextual Relationships of Buggy Classes for Detecting Quality-Related Bugs," Proceedings of the 39<sup>th</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME'23), NIER Track, Bogota, Colombia, October 1-6 2023.
- [2] Krasniqi, R., "Detecting Scattered and Tangled Quality Concerns in Code to Aid Maintenance and Evolution Tasks," Proceedings of the 45<sup>th</sup> IEEE/ACM International Conference on Software Engineering (ICSE'23), Doctoral Symposium Track, Melbourne, Australia, May 14-20, 2023.
- [3] Krasniqi, R., Cleland-Huang, J., "Enhancing Source Code Refactoring Detection with Explanations from Commit Messages," Proceedings of the 27<sup>th</sup> IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER'20), ERA Track, London, ON, February 18-21, 2020.
- [4] <u>Krasniqi, R., McMillan, C., "TraceLab Components for Generating Speech Act Types in Developer Question/Answer Conversations," Proceedings of the 34<sup>th</sup> IEEE International Conference on Software Maintenance and Evolution (ICSME'18), Artifacts Track, Madrid, Spain, September 23-29, 2018.</u>
- [5] Krasniqi, R., Jiang, S., McMillan, C., "TraceLab Components for Generating Extractive Summaries of User Stories," Proceedings of the 33<sup>rd</sup> IEEE International Conference on Software Maintenance and Evolution (IC-SME'17), Artifacts Track, Shanghai, China, September 17-24, 2017.

## PEER-REVIEWED WORKSHOP PUBLICATIONS

- [1] Krasniqi, R., Do, H., "Generalizability of NLP-based Models for Modern Software Development Cross-Domain Environments," Proceedings of the 2<sup>nd</sup> IEEE International Workshop on Natural Language-based Software Engineering (NLPBSE'23), co-located with ICSE, Melbourne, Australia, May 14-20, 2023.
- [2] Krasniqi, R., "Extractive Summarization of Related Bug-fixing Comments in Support of Bug Repair," Proceedings of the 2<sup>nd</sup> IEEE International Workshop on Automated Program Repair (APR'21), co-located with ICSE, Madrid, Spain, June 1, 2021.

#### Poster Presentations

- [1] Krasniqi, R., "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<sup>th</sup>, 2023. (2 Best Poster Award)
- [2] Krasniqi, R., "Leveraging Feature Selection Models for Effective Triaging of Quality Bugs," Presented at the UNT Engineering Research Showcase Competition, Denton, TX, Mar 30<sup>th</sup>, 2023.
- [3] <u>Krasniqi, R.,</u> "A Context-Aware Detection of Quality Concerns for Enhancing Explainability of Systems," <u>Presented at the Federation Graduate Student Research Symposium, Denton, TX, Apr 22<sup>nd</sup>, 2022.</u>
- [4] <u>Krasniqi, R.,</u> "Towards Semantic-Based Detection of Crosscutting Software Quality Concerns across Codebase," <u>Presented at the UNT Engineering Research Showcase Competition</u>, Denton, TX, Apr 14<sup>th</sup>, 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<sup>th</sup>, 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<sup>th</sup>, 2020.

# THESIS AND DISSERTATION

- [1] <u>Krasniqi, R.,</u> "Detecting Scattered and Tangled Crosscutting Quality Concerns in Source Code in Support of Maintenance Tasks," PhD Thesis, University of North Texas, May 2024. [Public Source]
- [2] Krasniqi, R., "Detecting Emerging Quality-Related Concerns Across Evolving Software Artifacts," MS Thesis, University of Notre Dame, November 2020. [Public Source]

# CONFERENCE TALKS

		tual Relationships of Buggy Classes for Detecting Quality-Related Bugs" va, COLUMBIAOct 4 <sup>th</sup> , 2023
	~	red & Tangled Quality Concerns in Code to Aid Maintenance & Evolution Tasks"  OURNE, AUSTRALIA
	_	cal Modeling Approach for Recommending Repair of Quality Bugs"  CAO SAR, CHINA
		of NLP Models for Modern Software Development Cross-Domain Environments" Melbourne, Australia
		pturing Quality Concerns in Bug Report Descriptions for Efficient Bug Triaging" EBORG, SWEDEN
	~	ug-fixing Comments from Issue Discussions in Support of Bug Repair"  MADRID, SPAINJul 15 <sup>th</sup> , 2021
		arization of Related Bug-fixing Comments in Support of Bug Repair" RID, SPAIN
		etecting Emerging Quality-Related Concerns across OSS Defect Reports"  NOLULU, HI
INVITED TA	LKS	
Panel		
Topic: Interes	ted in Pursuing a	Ph.D: What it's all About?
Event: CSE Se	eminar Series, Un	iversity of North Texas, Denton, TX
Speaker		
-	_	Tangled Quality Concerns in Source Code to Aid Maintenance & Evolution Tasks ium, Gaylord Texan Resort & Convention, Grapevine, TX Sep 13 <sup>th</sup> , 2023
TEACHING A	ACTIVITIES	
	•	Carolina at Charlotte
Fall 2024	ITIS3300	Software Req. & Project Mgmt.   Enrollment: 76   Evaluation: TBD
TEACHING FELL	ow, University of	North TexasAug 2022 – May 2023
Spring 2023	CSCE5933	Topics in CS and Engineering   Enrollment: 9   Evaluation: $4.7/5.0$
Spring 2023	CSCE4357	Database Systems Security   Enrollment: 5   Evaluation: $4.7/5.0$
Fall 2022	CSCE4357	Software Engineering   Enrollment: 10   Overall Evaluation: $4.6/5.0$

Teaching Assist	ANT, University	of North Texas
Spring 2024	CSCE5320	Scientific Data Visualization   Enrollment: 90
Fall 2023	CSCE5430	Software Engineering   Enrollment: 130
Spring 2022	CSCE5460	Software Testing and Empirical Methodologies   Enrollment: 28
$Summer\ 2022$	CSCE5200	Information Retrieval and Web Search   Enrollment: 66
Fall 2021	CSCE5430	Software Engineering   Enrollment: 182
$Summer\ 2021$	CSCE3444	Software Engineering   Enrollment: 74
Spring 2021	CSCE5430	Software Development Capstone I   Enrollment: 86
TEACHING ASSIST	ANT, University	of Notre Dame
Fall 2020	CSE40793	Software Development Practices   Enrollment: 44
Spring 2019	CSE40793	Principles and Practices of Software Development   Enrollment: 48
Instructor, Texa	as Tech Universit	y
Summer 2016	CS3383	Theory of Automata   Enrollment: 12
Spring 2016	CS3361	Concepts of Programming Languages   Enrollment: 32
Spring 2016	CS4352	Operating Systems   Enrollment: 46
Spring 2016	CS2413	Data Structures (C Programming)   Enrollment: 31
Fall 2015	CS2413	Data Structures (C++ Programming)   Enrollment: 36
Instructor, Roc	hester Institute o	f Technology/A.U.K
Summer 2015	GR18FZ	GRE and GMAT Preparatory Exam   Enrollment: 30
Spring 2015	RM28FZ	Remedial Math   Enrollment: 30
Summer 2015	DS18FZ	Discovery   Enrollment: 30
Teaching Assist	ANT, Midwestern	State University
Fall 2009	MATH1634	Calculus I   Enrollment: 28
Fall 2008	MATH2534	Calculus III   Enrollment: 20
Spring 2008	MATH3433	Differential Equations   Enrollment: 28
Spring 2007	CMPS1033	Computing for Science Majors   Enrollment: 36
Fall 2007	CMPS1013	Computer Concepts and Applications   Enrollment: 32
Curam I namuna	-	
GUEST LECTURE	S	
		EERING, "Refactoring of Object-Oriented Code and Detection of Code Smells," rtment of Computer Science and EngineeringJul 14 <sup>th</sup> , 2021
		EERING, "Software Evolution and Maintenance—A Developer's Mindset," rtment of Computer Science and EngineeringJul 12 <sup>th</sup> , 2021
		EERING, "The Interplay between Functional and NFRs in Agile Projects," rtment of Computer Science and EngineeringJun 14 <sup>th</sup> , 2021
		PEMENT PRACTICES, "Learning Code Smells for Leveling Up Code Quality," rtment of Computer Science and Engineering
		PMENT PRACTICES, "The Model–Driven Testing and Design Processes," puter Science and Engineering

CS4365-Software Engineering II, "Introduction to Software Testing: Graph-Based Coverage Texas Tech University, Department of Computer Science	
CS4365-Software Engineering II, "Introduction to Software Testing: Software Testing Terming Texas Tech University, Department of Computer Science	
STUDENT SUPERVISION	
Mentoring	
Reini Lin, AnitaB.org (1 on 1) Mentoring Program	2023
Blessing Sundire, Undergraduate Senior Thesis @ UNT	2021
PRESS COVERAGE	
CSE Ph.D Student Recognized as NCWIT AiC Finalist [Press Link]	
Denton, TX, May	$\dots 23^{\rm rd}, 2023$
UNT Engineering Grad Student Receives 3MT People's Choice Award [Press Link]	
Denton, TX, Dec	9 <sup>th</sup> , 2021
DDOEESSIONAL SERVICE	
PROFESSIONAL SERVICE	
Invited Journal Reviewer	
Reviewer, Software Quality Journal (SQJO)	2023
Reviewer, Journal of Software: Evolution and Process (JSEP)	2023-2024
Reviewer, Journal of Software: Testing Verification and Reliability (JSTVR)	2022
Invited Program Committee	
PC Member, (Research Track), Int'l Conference Conference on Software Architecture (ICSA) $\ldots$	2025
PC Member, (Artifact Evaluation Track), Int'l Conference on Software Engineering (ICSE) $\ldots\ldots$	2024
PC Member, (Research Track), Int'l Conference on Software Analysis, Evolution & Reengineering (	SANER) 2024
$\label{eq:pc_model} \mbox{PC Member, (Tool Demonstration Track), Int'l Joint Conference (ISSTA/ECOOP) }  \dots  \dots \mbo$	2024
PC Member, (Research & Experience Track), Int'l Conference on Software Engineering for AI (CAI	(N) 2023–2024
PC Member, (Research Track), Int'l Conference on Evaluation and Assessment in SE (EASE) $\dots$	2023–2024
PC Member, (Research Track), Int'l Conference on Mobile SE & Systems (MOBILESoft)	2022–2023
PC Member, (Junior PC Track), Int'l Conference on Mining Software Repositories (MSR)	2022–2023
Invited External Review Committee	
Reviewer, NCWIT Aspirations in Computing (AiC)	
Reviewer, Graduate Women in Science National Fellowship (GWIS)	2020-2022
Reviewer International Conference on Requirement Engineering (RE)	2020

Invited Organizing Committee
Tool/Demo Track Co-Chair, Int'l Conference on Software Analysis, Evolution and Reengineering (SANER) 2025
Session Chair, Int'l Conference on Software Engineering for Artificial Intelligence (CAIN)
Virtualization Chair, Int'l Conference on Automated Software Test (AST)
Invited Student Volunteer
Student Volunteer, Int'l Conference on Software Architecture (ICSA)
Student Volunteer Chair, Int'l Conference on Evaluation and Assessment in SE (EASE) $\dots 2021$
Outreach and Leadership
Student Volunteer, Texas CSTA Chapters Conference and Digital Divas (UNT)
Activity Instructor, Design Your World STEM Conference for Girls (SWE–Dallas)
Coding Instructor, South Bend Code School $(K_{13}-K_{18})$
STEM Volunteer Mentor, Association for Women in Science (AWIS-UND)
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)
Association for Computing Machinery (ACM)
Academic Memberships
Society of Women Engineers (SWE–UNT)
Society of Women Engineers (SWE–UND)
Association for Women in Science (AWIS-UND)
Women and Hi Tech(2018–2021)
ADDITIONAL INFORMATION
$Google\ Scholar\ https://scholar.google.com/citations?user=r\_Wi0GYAAAAJ\&hl=enrared for the control of $
Semantic Scholar https://www.semanticscholar.org/author/rrezarta-krasniqi/29449864
$DBLP \\ \\ https://dblp.org/pid/208/6990.html$
ORCiDhttps://orcid.org/0000-0001-6884-6131
$IEEE\ Digital\ Library\ https://ieeexplore.ieee.org/author/37086256828$
ACM Digital Library https://dl.acm.org/profile/99660481118
Researcher Profile https://conf.researchr.org/profile/rrezartakrasniqi
Research Gate
LinkedIn https://www.linkedin.com/in/rrezartakrasniqi/
Twitter