

# RREZARTA KRASNIQI, Ph.D.

Assistant Professor  
Department of Software and Information Systems  
College of Computing and Informatics  
University of North Carolina at Charlotte

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🏢 Woodward Hall, 333G  
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## EDUCATION

UNIVERSITY OF NORTH TEXAS ..... DENTON, TX, USA  
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 ..... NOTRE DAME, IN, USA  
Jan 2021     **M.S., in Computer Science and Engineering**  
Thesis: Detecting Emerging Quality-Related Concerns across Evolving Software Artifacts

MIDWESTERN STATE UNIVERSITY ..... WICHITA FALLS, TX, USA  
May 2010     **M.S., in Computer Science**

UNIVERSITY OF PRISHTINA ..... PRISHTINA, KOSOVO  
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 CAROLINA AT CHARLOTTE ..... CHARLOTTE, NC, USA  
Jul 2024 – Present     Assistant Professor

UNIVERSITY OF NORTH TEXAS ..... DENTON, TX, USA  
Jan 2021 – May 2024     Teaching Assistant  
Jan 2022 – May 2023     Teaching Fellow

UNIVERSITY OF NOTRE DAME ..... NOTRE DAME, IN, USA  
Aug 2019 – Dec 2020     Teaching Assistant  
Jan 2017 – Dec 2019     Research Assistant

TEXAS TECH UNIVERSITY ..... LUBBOCK, TX, USA  
 Sept 2015 – Dec 2016      Computer Science Instructor

ROCHESTER INSTITUTE OF TECHNOLOGY/A.U.K ..... PRISHTINA, KOSOVO  
 Mar 2015 – Aug 2015      GRE/GMAT Instructor

HIGHMARK INC. .... PITTSBURGH, PA, USA  
 Nov 2012 – Apr 2013      Java Developer II

UNITED STATES STEEL CORPORATION ..... PITTSBURGH, PA, USA  
 Sept 2010 – Nov 2012      Software Developer

MIDWESTERN STATE UNIVERSITY ..... WICHITA FALLS, TX, USA  
 Aug 2007–Dec 2009      Teaching Assistant

## NOTABLE AWARDS

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### RESEARCH AND EDUCATION GRANTS

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

### TRAVEL GRANTS

CSE Travel Grant, UNT Department of Computer Science and Engineering (\$1,470) ..... 2023  
 CENG Travel Grant, The 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, UNT Department of Computer Science and Engineering (\$1,500) ..... 2022  
 COMPSAC Travel Grant, 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, Grad Cohort Workshop (\$1,500) ..... 2020  
 CRA-W Travel Grant, 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 Department Award, University of North Texas (\$3,160) ..... 2021-2024  
 Best Poster Award, CMD-IT/ACM Richard Tapia Conference (\$500) ..... 2023  
 NCWIT Collegiate Award (finalist) (\$150) ..... 2023  
 Graduate Student Success Award, University of North Texas (\$500) ..... 2022  
 Invitation for EMSE Special Issue for Top Best Paper of SANER'21 ..... 2021  
 GHC–Virtual, UNT Department of Computer Science and Engineering (\$200) ..... 2021  
 3MT Doctoral Competition–People's Choice Award, University of North Texas (\$250) ..... 2021

Excellence Award, Ministry of Science, Education and Technology, Kosovo (\$2,000) .....	2009
Certificate of Appreciation, Midwestern State University .....	2008
Outstanding Graduate Woman, Midwestern State University .....	2008

#### SCHOLARSHIPS AND FELLOWSHIPS

Graduate Teaching Assistantship, University of North Texas (\$25,356) .....	2021-2024
Teaching Fellow Scholarship, University of North Texas (\$1,000) .....	2022-2023
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

#### 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., 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<sup>th</sup> 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<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] 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.
- [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.* ( **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] Krasniqi, R., “A Context-Aware Detection of Quality Concerns for Enhancing Explainability of Systems,” *Presented at the Federation Graduate Student Research Symposium*, Denton, TX, Apr 22<sup>nd</sup>, 2022.
- [4] Krasniqi, R., “Towards Semantic-Based Detection of Crosscutting Software Quality Concerns across Codebase,” *Presented at the UNT Engineering Research Showcase Competition*, Denton, TX, Apr 14<sup>th</sup>, 2022.
- [5] Krasniqi R., “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] Krasniqi R., “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

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- [1] Krasniqi, R., “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

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- Krasniqi R., “Capturing Contextual Relationships of Buggy Classes for Detecting Quality-Related Bugs”  
(ICSME, NIER Track), BOGOTA, COLUMBIA ..... Oct 4<sup>th</sup>, 2023
- Krasniqi, R., “Detecting Scattered & Tangled Quality Concerns in Code to Aid Maintenance & Evolution Tasks”  
(ICSE, Doctoral Track), MELBOURNE, AUSTRALIA ..... May 16<sup>th</sup>, 2023
- Krasniqi R., “Hierarchical Topical Modeling Approach for Recommending Repair of Quality Bugs”  
(SANER, Research Track), MACAO SAR, CHINA ..... Mar 23<sup>rd</sup>, 2023
- Krasniqi, R., “Generalizability of NLP Models for Modern Software Development Cross-Domain Environments”  
(NLPBSE, Workshop Track), MELBOURNE, AUSTRALIA ..... May 20<sup>th</sup>, 2023
- Krasniqi R., “Automatically Capturing Quality Concerns in Bug Report Descriptions for Efficient Bug Triaging”  
(EASE, Research Track), GÖTEBORG, SWEDEN ..... Jun 15<sup>th</sup>, 2022
- Krasniqi R., “Recommending Bug-fixing Comments from Issue Discussions in Support of Bug Repair”  
(COMPSAC, Research Track), MADRID, SPAIN ..... Jul 15<sup>th</sup>, 2021
- Krasniqi R., “Extractive Summarization of Related Bug-fixing Comments in Support of Bug Repair”  
(APR, Workshop Track), MADRID, SPAIN ..... Jun 1<sup>st</sup>, 2021
- Krasniqi R., “Analyzing and Detecting Emerging Quality-Related Concerns across OSS Defect Reports”  
(SANER, Research Track), HONOLULU, HI ..... Mar 10<sup>th</sup>, 2021

## INVITED TALKS

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### 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<sup>st</sup>, 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<sup>th</sup>, 2023

## TEACHING ACTIVITIES

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INSTRUCTOR, University of North Carolina at Charlotte ..... Aug 2024 – Present

Fall 2024	ITIS3300	Software Req. & Project Mgmt.   Enrollment: 76   Evaluation: TBD
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TEACHING FELLOW, University of North Texas ..... Aug 2022 – May 2023

Spring 2023	CSCE5933	Topics in CS and Engineering   Enrollment: 9   Evaluation: 4.7/5.0
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Spring 2023	CSCE4357	Database Systems Security   Enrollment: 5   Evaluation: 4.7/5.0
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Fall 2022	CSCE4357	Software Engineering   Enrollment: 10   Overall Evaluation: 4.6/5.0
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TEACHING ASSISTANT, University of North Texas .....			Jan 2021 – May 2024
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 ASSISTANT, University of Notre Dame .....			Aug 2019 – Dec 2020
Fall 2020	CSE40793	Software Development Practices   Enrollment: 44	
Spring 2019	CSE40793	Principles and Practices of Software Development   Enrollment: 48	
INSTRUCTOR, Texas Tech University .....			Sept'15 – Dec'16
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, Rochester Institute of Technology/A.U.K .....			Mar'15 – Aug'15
Summer 2015	GR18FZ	GRE and GMAT Preparatory Exam   Enrollment: 30	
Spring 2015	RM28FZ	Remedial Math   Enrollment: 30	
Summer 2015	DS18FZ	Discovery   Enrollment: 30	
TEACHING ASSISTANT, Midwestern State University .....			Aug'07 – Dec'09
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	
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 14 <sup>th</sup> , 2021
CSCE3444–SOFTWARE ENGINEERING, “Software Evolution and Maintenance–A Developer’s Mindset,” University of North Texas, Department of Computer Science and Engineering .....			Jul 12 <sup>th</sup> , 2021
CSCE3444–SOFTWARE ENGINEERING, “The Interplay between Functional and NFRs in Agile Projects,” University of North Texas, Department of Computer Science and Engineering .....			Jun 14 <sup>th</sup> , 2021
CSE40793–SOFTWARE DEVELOPMENT PRACTICES, “Learning Code Smells for Leveling Up Code Quality,” <i>University of Notre Dame</i> , Department of Computer Science and Engineering .....			Nov 6 <sup>th</sup> , 2020
CSE40793–SOFTWARE DEVELOPMENT PRACTICES, “The Model–Driven Testing and Design Processes,” <i>University of Notre Dame</i> , Computer Science and Engineering .....			Oct 27 <sup>th</sup> , 2020

CS4365–SOFTWARE ENGINEERING II, “Introduction to Software Testing: Graph–Based Coverage Criteria,”  
*Texas Tech University*, Department of Computer Science ..... Oct 8<sup>th</sup>, 2015

CS4365–SOFTWARE ENGINEERING II, “Introduction to Software Testing: Software Testing Terminology,”  
*Texas Tech University*, Department of Computer Science ..... Sep 10<sup>th</sup>, 2015

## STUDENT SUPERVISION

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### MENTORING

Reini Lin, AnitaB.org (1 on 1) Mentoring Program .....2023

Blessing Sundire, Undergraduate Senior Thesis @ UNT ..... 2021

## PRESS COVERAGE

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CSE Ph.D Student Recognized as NCWIT AiC Finalist [\[Press Link\]](#)  
DENTON, TX, MAY .....23<sup>rd</sup>, 2023

UNT Engineering Grad Student Receives 3MT People’s Choice Award [\[Press Link\]](#)  
DENTON, TX, Dec .....9<sup>th</sup>, 2021

## PROFESSIONAL SERVICE

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### 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, (Artifact Evaluation Track), Int’l Conference on Software Engineering (ICSE) ..... 2024

PC Member, (Research Track), Int’l Conference on Software Analysis, Evolution & Reengineering (SANER) 2024

PC Member, (Tool Demonstration Track), Int’l Joint Conference (ISSTA/ECOOP) ..... 2024

PC Member, (Research & Experience Track), Int’l Conference on Software Engineering for AI (CAIN) 2023–2024

PC Member, (Research Track), Int’l Conference on Evaluation and Assessment in SE (EASE) ..... 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) .....2023

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) ..... 2023  
Virtualization Chair, Int'l Conference on Automated Software Test (AST) ..... 2022

#### INVITED STUDENT VOLUNTEER

Student Volunteer, Int'l Conference on Software Architecture (ICSA) .....2022  
Student Volunteer Chair, Int'l 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<sub>13</sub>-K<sub>18</sub>) ..... 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

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#### 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)

### ADDITIONAL INFORMATION

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Google Scholar ..... [https://scholar.google.com/citations?user=r\\_Wi0GYAAAAAJ&hl=en](https://scholar.google.com/citations?user=r_Wi0GYAAAAAJ&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>  
Researcher Profile ..... <https://conf.researchr.org/profile/rrezartakrasniqi>  
Research Gate ..... [https://www.researchgate.net/profile/rrezarta\\_krasniqi](https://www.researchgate.net/profile/rrezarta_krasniqi)  
LinkedIn ..... <https://www.linkedin.com/in/rrezartakrasniqi/>  
Twitter ..... [https://twitter.com/rr\\_krasniqi](https://twitter.com/rr_krasniqi)