

# Damiano Torre

## Curriculum Vitae

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in damianotorre

### Personal

Date of birth May 9, 1983  
Citizenship United States of America

### Current Position

08/2024 - Now **Assistant Professor**, School of Engineering & Technology,  
University of Washington Tacoma, United States  
Teaching Computer Science and Software Engineering courses. Conducting research in  
Software Engineering, Cybersecurity, and Artificial Intelligence.

### Research Interests

My area of research is Software Engineering with specific interests in Artificial  
Intelligence, Cybersecurity, Model Driven Engineering, and Empirical Studies.

### Employment History

- 08/2023 - 08/2024 **Assistant Professor of Software Engineering**, Department of Engineering,  
St. Mary's University, San Antonio, Texas, United States  
Teaching Software Engineering and Artificial Intelligence courses. Conducted research in  
Software Engineering, Cybersecurity, and Artificial Intelligence.
- 04/2021 - 08/2023 **Associate Research Scientist**, Department of Computer Information Systems, Texas  
A&M University-Central Texas, Killeen, Texas, United States  
Conducted research in Cybersecurity and Artificial Intelligence in collaboration with U.S.  
government agencies.
- 12/2018 - 04/2021 **Research Associate**, University of Luxembourg, the Interdisciplinary Centre for  
Security, Reliability and Trust (SnT), Luxembourg  
Lead two main research projects involving industry partners from the legal and finance domain.  
Developing industrially applicable automated support for GDPR compliance assessment, and  
innovative solutions for improving requirements engineering in the financial domain.
- 05/2018 - 08/2018 **Contract Instructor**, Carleton University, the Department of Systems and Computer  
Engineering, Ottawa, Canada  
Principal instructor (lectures) of one undergraduate and one graduate course.
- 09/2017 - 04/2018 **Contract Researcher**, Carleton University, the Department of Systems and Computer  
Engineering, Ottawa, Canada  
Carried out research on the topic of modeling and Eclipse Papyrus. Developed user manuals  
to assist academics and students in the use of modeling tools.
- 01/2017 - 08/2017 **Contract Instructor**, Carleton University, the Department of Systems and Computer  
Engineering, Ottawa, Canada  
Principal instructor (lectures) of one undergraduate and two graduate courses.

- 10/2015 - 04/2016 **Contract Researcher**, *University of Castilla-La Mancha, the University College of Computer Science, Ciudad Real, Spain*  
Developed OCL rules to check UML models' consistency in the Eclipse environment.
- 09/2012 - 09/2015 **Research Assistant**, *Carleton University, the Department of Systems and Computer Engineering, Ottawa, Canada*  
Carried out empirical studies about the topic of UML consistency. Wrote research papers and presented them in international venues.
- 10/2011 - 03/2012 **Solution Assistant**, *Everis Spain S.L., Madrid, Spain*  
Developed UML models with Vega Modeler and IBM Rational Rose to build software in the banking domain.
- 01/2009 - 09/2010 **Software Developer**, *University of Castilla-La Mancha, the University College of Computer Science, Ciudad Real, Spain*  
Developed a tool to check the quality of UML class diagrams using Java (jdom, swing, jdesktop, awt, useful, lang), XML, and XSD.
- 02/2001 - 08/2005 **Software Developer**, *Manifatture Roger s.r.l., Barletta, Italy*  
Developed a database in MySQL to take care of the accounting of the external companies that worked for Manifatture Roger.

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## Education and Training

- 09/2012 - 10/2018 **Doctor of Philosophy in Electrical and Computer Engineering**, *Carleton University, Department of Systems and Computer Engineering, Ottawa, Canada*  
Advisors: Prof. Yvan Labiche, Prof. Marcela Genero, and Dr. Maged Elaasar  
Ph.D. Thesis: "*Definition and Validation of Consistency rules between UML Diagrams*"
- 10/2009 - 07/2011 **Master of Science in Advanced Informatics Technologies**, *University of Castilla-La Mancha, the University College of Computer Science, Ciudad Real, Spain*  
Advisor: Prof. Marcela Genero  
M.Sc. Thesis: "*CQA-UML-METH Methodology to evaluate UML models*"
- 09/2005 - 10/2009 **Bachelor of Science in Computer Science**, *University of Bari Aldo Moro, the Department of Computer Science, Bari, Italy*  
Advisors: Prof. Giuseppe Visaggio and Prof. Marcela Genero  
B.Sc. Thesis: "*CD-Tool: Design of a Tool to Calculate the Quality of Class Diagrams*"

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## Collaboration with Industrial Partners

- 04/2021 - 08/2023 **Air Force Research Laboratory (AFRL) (<https://www.afrl.af.mil/>) and Department of Homeland Security (DHS) (<https://www.dhs.gov/>) Science and Technology (S&T) Directorate (<https://www.dhs.gov/science-and-technology/>)**  
Project: Conduct research on cybersecurity and create the Center for Cybersecurity Innovation (CCI) (<https://www.tamuct.edu/cybersecurity/>), Texas A&M University - Central Texas.
- 05/2019 - 04/2021 **Clearstream Deutsche Börse AG (<https://www.clearstream.com/>)**  
Project: IMoReF - Improved Model-based Requirements for Financial Applications, University of Luxembourg.
- 12/2018 - 04/2021 **Linklaters LLP (<https://www.linklaters.com/>)**  
Project: ARTAGO: Artificial intelligence-enabled Automation for GDPR Compliance, University of Luxembourg.

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## Teaching Certifications

2022 **Inclusive Teaching for Equitable Learning. Association of College and University Educators (United States)**

Certification in creating inclusive learning environments. Covered understanding of implicit bias, microaggressions, stereotype threat, and imposter syndrome. Acquired skills in fostering student belonging, ensuring accessibility of course materials, appreciating diverse viewpoints, and promoting productive dialogue. Modules included: Bias Management, Reducing Microaggressions, Addressing Imposter Phenomenon, Inclusive Learning Design, and Equity-Centered Course Design.

2015 **Certificate in Preparing to Teach. Carleton University (Canada)**

This 10-week blended certificate program equipped me for teaching roles, emphasizing practical approaches informed by theory. I gained experience in diverse teaching and assessment methods, managed various class sizes, and tackled learning challenges specific to computer science. Outcomes included designing a computer science undergraduate syllabus based on constructive alignment principles, conducting learner-centered teaching demos, and formulating a teaching philosophy rooted in educational theory.

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## Teaching Experience

Winter 2024 **EG-6338, Artificial Intelligence and Machine Learning (Principal Instructor, 18 undergraduate and 11 graduate students)**, St. Mary's University, Department of Engineering, San Antonio, USA

Students learned Machine Learning fundamentals, Python programming, regression techniques, Gradient Descent principles, classification methods (kNN, Decision Trees, Random Forest, Logistic Regression), clustering algorithms (k-means, k-modes, Agglomerative Clustering), and Neural Networks basics (Feedforward, Convolutional, Perceptrons, Single-layer, Multi-layer Perceptrons).

**EG-1316, Object-Oriented Programming and Design using C++ (Principal Instructor, 10 undergraduate students)**, St. Mary's University, Department of Engineering, San Antonio, USA

Students learned C++ programming knowledge, including syntax and interactivity; developed decision-making, looping, and modular programming skills; understood object-oriented principles and data management (arrays, vectors, linked lists); learned searching, sorting, recursion, pointers, and I/O operations; gained insights into polymorphism, exception handling, and templates; and familiarized with the Standard Template Library (STL).

Fall 2023 **EG-1213, C Programming For Engineers (Principal Instructor, 11 undergraduate students)**, St. Mary's University, Department of Engineering, San Antonio, USA

Students learned (a) To compile, link, debug, and run C programs; (b) To use the basic C program structure; variables, constants, and operators; (c) To use the repetition constructs such as looping with for, while and do-while statements; (d) To use the selection structures such as if, If/else, switch, conditional expression statement.

**EG-1113, Lab C Programming For Engineers (Principal Instructor, 11 undergraduate students)**, St. Mary's University, Department of Engineering, San Antonio, USA

Students learned (a) To create program modules using functions (passing data to and returning values from functions); (b) To use arrays and pointers; (c) To work with strings and string manipulating functions; (d) To perform file I/O operations; (e) To develop structured, modular, and top-down design of software.

Summer 2018 **SYSC-2100**, *Algorithms and Data Structures (Principal Instructor, 34 undergraduate students)*, Carleton University, the Department of Systems and Computer Engineering, Ottawa, Canada

Students learned (a) common programming techniques/algorithms (recursion, searching and sorting), (b) several fundamental ADTs and data structures, (c) how to develop the specifications for ADTs, design their underlying data structures, and implement the ADTs as Java classes, and (d) techniques for designing and analyzing algorithms.

**SYSC-5709**, *Advanced Topics in Software Engineering Model Driven Software Engineering in Practice (Principal Instructor, 16 graduate students)*, Carleton University, the Department of Systems and Computer Engineering, Ottawa, Canada

Students learned how to (a) define domain-specific modelling languages with Meta-Object Facility technology in Eclipse, (b) define abstract and concrete syntax, validation rules, model transformations, code generators and graphical editors, and (c) enable collaborative modeling.

Winter 2017 **SYSC-4102**, *Performance Engineering (Principal Instructor, 12 undergraduate students)*, Carleton University, the Department of Systems and Computer Engineering, Ottawa, Canada

Students learned about all the basic approaches to performance engineering (measurement techniques, setting up of test environments, interpreting and comparing results, models that explain capacity constraints and delays.

**SYSC-5101**, *Design of High-Performance Software (Principal Instructor, 32 graduate students)*, Carleton University, the Department of Systems and Computer Engineering, Ottawa, Canada

Students learned about (a) how to design software to performance demanding specifications, (b) analysis using models of computation, workload, and performance, (c) principles to govern design improvement for sequential, concurrent and parallel execution, based on resource architecture and quantitative analysis.

Summer 2017 **SYSC-5709**, *Advanced Topics in Software Engineering Model Driven Software Engineering in Practice (Principal Instructor, 22 graduate students)*, Carleton University, the Department of Systems and Computer Engineering, Ottawa, Canada

Students learned how to (a) define domain-specific modelling languages with Meta-Object Facility technology in Eclipse, (b) define abstract and concrete syntax, validation rules, model transformations, code generators and graphical editors, and (c) enable collaborative modeling.

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## Honors, Scholarships and Awards

2024 **Admiral in the Texas Navy**

This honorary award commissioned by the Governor of Texas is given to individuals who have made significant contributions to the state of Texas.  
Texas, USA

2023 **Selected for Assistant Professor (rtd/B) position – Offer declined**

University of Ca Foscari Venezia  
Sestiere Dorsoduro, 3246, 30123 Venezia VE, Italy  
Declined for Personal Reasons

2022 **Reviewer Recognition**

Certificate of acknowledges and appreciation  
Journal of Software and Systems Modeling

- 2022 **Selected as 2022 DARPA Riser**  
 Texas A&M University  
 Administration Building, 400 Bizzell St, College Station, TX 77843, United States  
<https://forward.darpa.mil/Risers>
- 2021 **Selected for Assistant Professor position – Offer declined**  
 Tarleton State University  
 1333 W Washington St, Stephenville, TX 76401, United States  
 Declined for Personal Reasons
- 2015 **Best Student Volunteer Award**  
 23rd ACM/IEEE International Conference on Model Driven Engineering Languages and Systems (MODELS), Ottawa, Canada
- 2010 **Master Scholarship: Back to The Future**  
 Puglia Region, Italy  
 \$ 30.000,00
- 2009 **Research Collaborative Scholarship**  
 University of Castilla-La Mancha, Ciudad Real, Spain  
 \$ 6.700,00

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## Research Projects and Grants

- 2023 **AI-enabled Software Systems for Enhancing Resilience in Autonomous Vehicles against Cyber Physical Attacks**  
 Role: Principal Investigator  
 Institution: St. Mary's University, San Antonio, United States  
 Funding agency: Department of Defense (DoD), United States  
 Total Funding: \$ 760.000,00 - **Pending**
- 2023 **Enhancing Autonomous Vehicles Cybersecurity Through Innovative Software Systems**  
 Role: Principal Investigator  
 Institution: St. Mary's University, San Antonio, United States  
 Funding agency: Department of Defense (DoD), United States  
 Total Funding: \$ 340.000,00
- 2023 **Buenas - Giving All a Seat at the Table Using Mixed Reality**  
 Role: Co-Principal Investigator  
 Institution: Texas A&M University - Central Texas, Killeen, United States  
 Funding agency: National Science Foundation (NSF), United States  
 Total Funding: \$ 600.000,00
- 2021 **Secure Lambda**  
 Role: Co-Principal Investigator  
 Institution: Texas A&M University - Central Texas, Killeen, United States  
 Funding agency: Texas A&M Engineering Experiment Station (TEES), United States  
 Total Funding: \$ 5.000,00

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## Membership

- 2024 - Now **Association for Computing Machinery (ACM)**  
 ACM member from 2024 to present.
- 2016 - Now **Institute of Electrical and Electronics Engineers (IEEE)**  
 IEEE student member from 2016 to 2018. IEEE member from 2018 to present.

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## Service

- 2024 **Member of the Hiring Committee for an Assistant Professor opening**  
Area of Interests: Machine Learning and Artificial Intelligence for Electrical and Computer Engineering  
The School of Engineering & Technology (SET)  
University of Washington Tacoma, 1900 Commerce St, Tacoma, WA 98402, USA
- 2023 **Member of the Hiring Committee for two Postdoc openings**  
Area of Interests: Artificial Intelligence and Cybersecurity  
Department of Computer Information Systems  
Texas A&M University - Central Texas, 1001 Leadership PI, Killeen, TX 76549, USA
- 2023 **Advisory Expert of Ph.D. Thesis**  
Ph.D. Candidate: Orlando Amaral Cejas  
Thesis title: Artificial Intelligence-assisted Compliance Automation for the GDPR  
University of Luxembourg, 2 Av. de l'Universite, 4365 Esch-sur-Alzette, Luxembourg
- 2019 - 2023 **Member of Ph.D. Thesis Supervision Committee**  
Ph.D. Candidate: Orlando Amaral Cejas  
Thesis title: Artificial Intelligence-assisted Compliance Automation for the GDPR  
University of Luxembourg, 2 Av. de l'Universite, 4365 Esch-sur-Alzette, Luxembourg
- 2020 - 2021 **Member of Master Thesis Supervision Committee**  
Master student: Alexander Vatov  
Thesis title: Graphical wizard for building GDPR-compliant privacy policies  
University of Luxembourg, 2 Av. de l'Universite, 4365 Esch-sur-Alzette, Luxembourg
- 2018 **Student volunteer**  
5th International Conference on Information and Communication Technology for Sustainability (ICT4S), Toronto, Canada
- 2012 - 2017 **Department representative**  
Systems and Computer Engineering Department representative at the Graduate Students Associations council at Carleton University, Ottawa, Canada
- 2016 **Member of the Local Organizing Committee**  
Empirical Software Engineering International Week (ESEIW), Ciudad Real, Spain
- 2012 - 2016 **Student Club**  
Board member of the Carleton Food Collective at Carleton University, Ottawa, Canada
- 2015 **Student volunteer**  
23rd ACM/IEEE International Conference on Model Driven Engineering Languages and Systems (MODELS), Ottawa, Canada
- 2012 **Student volunteer**  
15th Evaluation and Assessment in Software Engineering conference (EASE), Ciudad Real, Spain
- 2005 - 2009 **Department representative**  
Department of Computer Science at the Undergraduate Students Associations council at University of Bari Aldo Moro, Bari, Italy

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## Conference/Workshop Organization

- 2025 **Registration Co-chair**  
International joint Conferences on Theory and Practice of Software (ETAPS)  
Hamilton, Canada  
<https://etaps.org/2025/>
- 2022 **Registration Chair**  
33rd IEEE International Symposium on Software Reliability Engineering (ISSRE)  
Charlotte, North Carolina, United States  
<https://issre2022.github.io/>
- 2020 **Workshops Co-chair**  
31st IEEE International Symposium on Software Reliability Engineering (ISSRE)  
Coimbra, Portugal  
<https://2020.issre.net/>
- 2019 **Fast Abstract Co-chair**  
30th IEEE International Symposium on Software Reliability Engineering (ISSRE)  
Berlin, Germany  
<https://2019.issre.net/>
- 2018 **Publicity Co-chair**  
29th IEEE International Symposium on Software Reliability Engineering (ISSRE)  
Memphis, Tennessee, United States  
<https://2018.issre.net/>
- 2017 **Doctoral Symposium Co-chair**  
28th IEEE International Symposium on Software Reliability Engineering (ISSRE)  
Toulouse, France  
<https://2017.issre.net/>
- 2016 **Publicity and Local Arrangements Chair**  
27th IEEE International Symposium on Software Reliability Engineering (ISSRE)  
Ottawa, Ontario, Canada  
<https://2016.issre.net/>
- 2015 **Web Chair**  
26th IEEE International Symposium on Software Reliability Engineering (ISSRE)  
Gaithersburg, Maryland, United States  
<https://2015.issre.net/>
- 2015 **General Chair**  
1st International Workshop on UML Consistency Rules (WUCOR), Co-located with the 26th ACM/IEEE International Conference on Model Driven Engineering Languages and Systems (MODELS)  
<https://wucor.wordpress.com/>

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## Program Committee Membership

- 2025 2nd International Workshop on Multi-disciplinary, Open, and Relevant Requirements Engineering (MO2RE)  
30th working conference on Exploring Modeling Methods for Systems Analysis and Development (EMMSAD), co-located with International Conference on Advanced Information Systems Engineering (CAiSE)

- 2024 46th IEEE/ACM International Conference on Software Engineering, New Ideas and Emerging Results (ICSE NIER)  
 18th International Symposium on Empirical Software Engineering and Measurement, Emerging results, Vision papers and Poster track (ESEM)  
 1st International Workshop on Multi-disciplinary, Open, and Relevant Requirements Engineering (MO2RE)  
 29th working conference on Exploring Modeling Methods for Systems Analysis and Development (EMMSAD), co-located with International Conference on Advanced Information Systems Engineering (CAiSE)  
 24th IEEE International Conference on Quality Software (QRS)  
 35th IEEE International Symposium on Software Reliability Engineering (ISSRE)
- 2023 International Workshop on Patterns of Argumentation for Safety-Security Assurance Cases (PASSAC)  
 34th IEEE International Symposium on Software Reliability Engineering (ISSRE)  
 23rd IEEE International Conference on Quality Software (QRS)
- 2022 33rd IEEE International Symposium on Software Reliability Engineering (ISSRE)  
 22nd IEEE International Conference on Quality Software (QRS)  
 5th Workshop on Natural Language Processing for Requirements Engineering (NLP4RE)
- 2021 21st IEEE International Conference on Quality Software (QRS)  
 32nd IEEE International Symposium on Software Reliability Engineering (ISSRE)  
 43rd International Conference on Software Engineering, Posters (ICSE)  
 36th IEEE/ACM International Conference on Automated Software Engineering, Late Breaking Results (ASE)  
 15th International Symposium on Empirical Software Engineering and Measurement, Emerging results, Vision papers and Poster track (ESEM)  
 1st ACM International Symposium on Advanced Security on Software and Systems (ASSS)
- 2020 31st IEEE International Symposium on Software Reliability Engineering (ISSRE)  
 14th International Symposium on Empirical Software Engineering and Measurement, Emerging results, Vision papers and Poster track (ESEM)  
 Winter Simulation conference, Poster track (WSC)  
 31st IEEE International Symposium on Software Reliability Engineering, Fast Abstract (ISSRE)  
 Ingeniería del Software y Bases de Datos (JISBD)
- 2019 30th IEEE International Symposium on Software Reliability Engineering (ISSRE)  
 13th International Symposium on Empirical Software Engineering and Measurement, IDoESE Doctoral Symposium (ESEM)  
 Winter Simulation conference, Poster track (WSC)  
 13th International Symposium on Empirical Software Engineering and Measurement, Emerging results, Vision papers and Poster track (ESEM)



- 2018 29th IEEE International Symposium on Software Reliability Engineering (ISSRE)  
12th International Symposium on Empirical Software Engineering and Measurement,  
Emerging results, Vision papers and Poster track (ESEM)  
1st IEEE Workshop on NEXt level of Test Automation (NEXTA)

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## Reviewer Service

- 2024 IEEE Transactions on Software Engineering  
ACM Transactions on Software Engineering and Methodology
- 2023 Empirical Software Engineering (Springer)  
Software and Systems Modeling Journal (Springer)  
Artificial Intelligence and Law (Elsevier)  
IEEE Transactions on Artificial Intelligence
- 2022 Software and Systems Modeling Journal (Springer)  
Software Quality Journal (Springer)  
e-Informatica Software Engineering Journal
- 2021 e-Informatica Software Engineering Journal  
Engineering Mathematics Journal (MDPI)
- 2020 e-Informatica Software Engineering Journal
- 2019 IEEE Transactions on Industrial Informatics  
Computer Standards & Interfaces (Elsevier)  
Information and Software Technology (Elsevier)  
Software Testing Verification and Reliability (John Wiley & Sons)
- 2018 IEEE Software  
Journal on Computer Science and Engineering (Springer)

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## Supervision of Individuals

### Research Associates

- 03/2023 - 08/2023 **Gikita Vays**  
Project on Blockchain Techniques  
Co-advised with Anitha Chennamaneni  
Texas A&M University - Central Texas, United States
- 01/2023 - 08/2023 **Frantzy Mesadieu**  
Project on Deep Reinforcement Learning  
Co-advised with Anitha Chennamaneni  
Texas A&M University - Central Texas, United States

### Doctoral Students

- 10/2019 - 06/2021 **Orlando Amaral Cejas**  
Ph.D. Thesis: Artificial Intelligence-assisted Compliance Automation for the GDPR  
Co-advised with Mehrdad Sabetzadeh and Sallam Abualhaija  
University of Luxembourg, Luxembourg

08/2019 - 04/2021 **Alvaro Veizaga**  
Ph.D. Thesis: Improved Model-based Requirements for Financial Applications  
Co-advised with Mehrdad Sabetzadeh and Mauricio Alferez  
University of Luxembourg, Luxembourg

#### Master Students

09/2023 - 05/2024 **Kimberly Tse**  
Project on Machine Learning Techniques and Drones  
Co-advised with Ben Abbott  
St. Mary's University, United States

06/2021 - 12/2022 **Frantzy Mesadieu**  
Project on Deep Learning Techniques  
Co-advised with Anitha Chennamaneni  
Texas A&M University - Central Texas, United States

09/2021 - 06/2022 **Pradeep Kumar Paletigandla**  
Project on Privacy-Preservation Techniques  
Co-advised with Anitha Chennamaneni  
Texas A&M University - Central Texas, United States

07/2019 - 08/2021 **Aleksander Vatov**  
Master Thesis: Graphical wizard for building GDPR-compliant privacy policies  
Co-advised with Mehrdad Sabetzadeh  
University of Luxembourg, Luxembourg

01/2017 - 04/2017 **Haiyang Bu**  
Master Thesis on UML Consistency Rules  
Co-advised with Yvan Labiche  
Carleton University, Ottawa, Canada

#### Undergraduate Students

01/2024 - current **Laurene Robinson**  
Project on Machine Learning, McNair Scholarship Program  
St. Mary's University, San Antonio, Texas, United States

01/2024 - 05/2024 **Luz Manchego**  
Project on Deep Learning and Cybersecurity, Spring Research Fellowship  
St. Mary's University, San Antonio, Texas, United States

09/2022 - 08/2023 **John Rhed Eugenio**  
Project on Generative Adversarial Networks (GAN)  
Co-advised with Anitha Chennamaneni  
Texas A&M University - Central Texas, United States

09/2022 - 08/2023 **JaeYun Jo**  
Project on Gated Recurrent Units (GRU)  
Co-advised with Anitha Chennamaneni  
Texas A&M University - Central Texas, United States

02/2023 - 06/2023 **Mounika Nadenla Venkataramana**  
Project on Quantum Key Distribution (QKD) Protocols  
Co-advised with Anitha Chennamaneni  
Texas A&M University - Central Texas, United States

- 09/2022 - 06/2023 **Ikechukwu Oranekwu**  
Project on Deep Belief Networks (DBN)  
Co-advised with Anitha Chennamaneni  
Texas A&M University - Central Texas, United States
- 06/2022 - 03/2023 **Brandon Sabrula**  
Project on Homomorphic encryptions  
Co-advised with Anitha Chennamaneni  
Texas A&M University - Central Texas, United States
- 09/2022 - 02/2023 **Owen Reagan**  
Project on Restricted Boltzmann Machine (RBM)  
Co-advised with Anitha Chennamaneni  
Texas A&M University - Central Texas, United States
- 06/2021 - 08/2022 **Kyra Mae Odsinada Pitapit**  
Project on Privacy-Preservation techniques  
Co-advised with Anitha Chennamaneni  
Texas A&M University - Central Texas, United States
- 10/2021 - 06/2021 **Alex Orlando Rodriguez**  
Project on Privacy-Preservation techniques  
Co-advised with Anitha Chennamaneni  
Texas A&M University - Central Texas, United States

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## Publications

### Journal Papers

- [1] **Torre, Damiano**, Anitha Chennamaneni, JaeYun Jo, Gitika Vyas, and Brandon Sabrula. Toward enhancing privacy preservation of a federated learning cnn intrusion detection system in iot: Method and empirical study. *ACM Trans. Softw. Eng. Methodol.*, 34(2), 2025.
- [2] Frantzy Mesadieu, **Damiano Torre**, and Anitha Chennameneni. Leveraging Deep Reinforcement Learning Technique for Intrusion Detection in SCADA Infrastructure. *IEEE Access*, 12:63381–63399, 2024.
- [3] **Damiano Torre**, Frantzy Mesadieu, and Anitha Chennamaneni. Deep learning techniques to detect cybersecurity attacks: a systematic mapping study. *Empirical Software Engineering*, 28(3):1–71, 2023.
- [4] Scott Lorenz, Stanley Stinehoura, Anitha Chennamaneni, Abdul Subhani, and **Damiano Torre**. IoT forensic analysis: A family of experiments with Amazon Echo devices. *Forensic Science International: Digital Investigation*, 45:301541, 2023.
- [5] **Damiano Torre**, Anitha Chennamaneni, and Alex Rodriguez. Privacy-Preservation Techniques for IoT Devices: A Systematic Mapping Study. *IEEE Access*, 11:16323–16345, 2023.
- [6] **Damiano Torre**, Yvan Labiche, Marcela Genero, and Maged Elaasar. How consistency is handled in model-driven software engineering and uml: an expert opinion survey. *Software Quality Journal*, 31(1):1–54, 2023.
- [7] Ana Goulart, Anitha Chennamaneni, **Damiano Torre**, Byul Hur, and Fadhil Y.

Al-Aboosi. On Wide-Area IoT Networks, Lightweight Security and Their Applications: A Practical Review. *Electronics*, 11(11), 2022.

- [8] **Damiano Torre**, Mauricio Alférez, Ghanem Soltana, Mehrdad Sabetzadeh, and Lionel C. Briand. Modeling data protection and privacy: application and experience with GDPR. *Software and Systems Modeling*, 20(6):2071–2087, 2021.
- [9] Alvaro Veizaga, Mauricio Alférez, **Damiano Torre**, Mehrdad Sabetzadeh, and Lionel C. Briand. On systematically building a controlled natural language for functional requirements. *Empirical Software Engineering*, 26(4):79, 2021.
- [10] Orlando Amaral, Sallam Abualhaija, **Damiano Torre**, Mehrdad Sabetzadeh, and Lionel Briand. AI-enabled automation for completeness checking of privacy policies. *IEEE Transactions on Software Engineering*, 48(11):4647–4674, 2021.
- [11] **Damiano Torre**, Yvan Labiche, Marcela Genero, and Maged Elaasar. A systematic identification of consistency rules for UML diagrams. *Journal of Systems and Software*, 144:121–142, 2018.

#### Conference Papers

- [12] Alvaro Veizaga, Mauricio Alferez, **Damiano Torre**, Mehrdad Sabetzadeh, Lionel C. Briand, and Elene Pitskhelauri. Leveraging natural-language requirements for deriving better acceptance criteria from models. In *23rd ACM/IEEE International Conference on Model Driven Engineering Languages and Systems, MODELS 2020, Virtual, October 16-23, 2020*.
- [13] **Damiano Torre**, Sallam Abualhaija, Mehrdad Sabetzadeh, Lionel C. Briand, Katrien Baetens, Peter Goes, and Sylvie Forastier. An AI-assisted approach for checking the completeness of privacy policies against GDPR. In *28th IEEE International Requirements Engineering Conference, RE 2020, Zurich, Switzerland, August 31-September 4, 2020*, pages 136–146, 2020.
- [14] **Damiano Torre**, Yvan Labiche, Marcela Genero, Maged Elasaar, and Claudio Menghi. UML consistency rules: a case study with open-source UML models. In *8th IEEE/ACM International Conference on Formal Methods in Software Engineering (FormaliSE) 2020, Virtual, July 13, 2020*, pages 130–140, 2020.
- [15] **Damiano Torre**, Ghanem Soltana, Mehrdad Sabetzadeh, Lionel C. Briand, Yuri Auffinger, and Peter Goes. Using models to enable compliance checking against the GDPR: an experience report. In *22nd ACM/IEEE International Conference on Model Driven Engineering Languages and Systems, MODELS 2019, Munich, Germany, September 15-20, 2019*, pages 1–11, 2019.
- [16] **Damiano Torre**, Yvan Labiche, and Marcela Genero. UML consistency rules: a systematic mapping study. In *18th International Conference on Evaluation and Assessment in Software Engineering, EASE '14, London, England, United Kingdom, May 13-14, 2014*, pages 6:1–6:10, 2014.
- [17] **Damiano Torre**. On collecting and validating UML consistency rules: a research proposal. In *18th International Conference on Evaluation and Assessment in Software Engineering, EASE '14, London, England, United Kingdom, May 13-14, 2014*, pages 57:1–57:4, 2014.

- [18] Moisés Rodríguez, Marcela Genero, **Damiano Torre**, Belen Blasco, and Mario Piattini. A methodology for continuous quality assessment of software artefacts. In *Proceedings of the 10th International Conference on Quality Software, QSIC 2010, Zhangjiajie, China, 14-15 July 2010*, pages 254–261, 2010.
- [19] **Damiano Torre**, Belen Blasco, Marcela Genero, and Mario Piattini. CQA-ENV: an integrated environment for the continuous quality assessment of software artifacts. In *New Trends in Software Methodologies, Tools and Techniques - Proceedings of the Eighth SoMeT 2009, September 23-25, 2009, Prague, Czech Republic*, pages 148–164, 2009.

#### Workshop Papers

- [20] **Damiano Torre**, Yvan Labiche, Marcela Genero, Maria Teresa Baldassarre, and Maged Elaasar. UML diagram synthesis techniques: a systematic mapping study. In *Proceedings of the 10th International Workshop on Modelling in Software Engineering, MiSE@ICSE 2018, Gothenburg, Sweden, May 27-28, 2018*, pages 33–40, 2018.
- [21] **Damiano Torre**, Giuseppe Procaccianti, Davide Fucci, Sonja Lutovac, and Giuseppe Scanniello. On the presence of green and sustainable software engineering in higher education curricula. In *1st IEEE/ACM International Workshop on Software Engineering Curricula for Millennials, SECM@ICSE 2017, Buenos Aires, Argentina, May 27, 2017*, pages 54–60, 2017.
- [22] **Damiano Torre**. Verifying the consistency of UML models. In *2016 IEEE International Symposium on Software Reliability Engineering Workshops, ISSRE Workshops 2016, Ottawa, ON, Canada, October 23-27, 2016*, pages 53–54, 2016.
- [23] **Damiano Torre** and Coral Calero. How sustainable are model software artifacts in the context of model driven software engineering. In *Proceedings of the 3rd International Workshop on Measurement and Metrics for Green and Sustainable Software Systems, MeGSuS 2016, co-located with 10th International Symposium on Empirical Software Engineering and Measurement (ESEM 2016), Ciudad Real, Spain, September 7, 2016*, pages 43–52, 2016.
- [24] **Damiano Torre**. On validating UML consistency rules. In *2015 IEEE International Symposium on Software Reliability Engineering Workshops, ISSRE Workshops, Gaithersburg, MD, USA, November 2-5, 2015*, pages 59–60, 2015.
- [25] **Damiano Torre**, Yvan Labiche, Marcela Genero, and Maged Elaasar. UML consistency rules in technical books. In *2015 IEEE International Symposium on Software Reliability Engineering Workshops, ISSRE Workshops, Gaithersburg, MD, USA, November 2-5, 2015*, page 68, 2015.

#### Other Publications

- [26] **Damiano Torre**, Yvan Labiche, Marcela Genero, Maged Elaasar, Tuhin Kanti Das, Bernhard Hoisl, and Matthias Kowal. 1st international workshop on UML consistency rules (WUCOR 2015): Post workshop report. *ACM SIGSOFT Software Engineering Notes*, 41(2):34–37, 2016.
- [27] **Damiano Torre**, Yvan Labiche, Marcela Genero, and Maged Elaasar. Introduction to WUCOR 2015. In *Joint Proceedings of the 8th International Workshop on Model-based Architecting of Cyber-physical and Embedded Systems and 1st International Workshop on UML Consistency Rules (ACES-MB 2015 & WUCOR*

2015) co-located with ACM/IEEE 18th International Conference on Model Driven Engineering Languages and Systems (MoDELS 2015), Ottawa, Canada, September 28, 2015, pages 27–28, 2015.

- [28] Iulia Dragomir, Susanne Graf, Gabor Karsai, Florian Noyrit, Iulian Ober, **Damiano Torre**, Yvan Labiche, Marcela Genero, and Maged Elaasar, editors. *Joint Proceedings of the 8th International Workshop on Model-based Architecting of Cyber-physical and Embedded Systems and 1st International Workshop on UML Consistency Rules (ACES-MB 2015 & WUCOR 2015) co-located with ACM/IEEE 18th International Conference on Model Driven Engineering Languages and Systems (MoDELS 2015), Ottawa, Canada, September 28, 2015*, volume 1508. CEUR-WS.org, 2015.
- [29] **Damiano Torre**. Impact analysis of the vulnerabilities of AI-based techniques used to detect cybersecurity attacks. In *Proceedings of the DARPA Risers Conference 2022*. College Station, TX, USA, 2022.

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## Software Disclosure

- 2022 **Python for IoT Devices**  
S. Lorenz, S. Stinehour, A. Chennamaneni, A. B. Subhani, D. Torre  
IoT Forensic Analysis: a Family of Experiments with Amazon Echo Devices  
<https://github.com/ccit-amuct/IoT-Forensic-Analysis/>
- 2021 **Artificial intelligence-enabled Automation for GDPR Compliance**  
O. Amaral, S. Abualhaija, D. Torre, M. Sabetzadeh, L. C. Briand  
AI-enabled Automation for Completeness Checking of Privacy Policies  
SnT Software Invention Disclosure, Luxembourg
- 2020 **Improved Model-based Requirements for Financial Applications**  
A. Veizaga, M. Alferez, D. Torre, M. Sabetzadeh, L. C. Briand  
UML Consistency Rules: a Case Study with Open-Source UML Models  
SnT Software Invention Disclosure, Luxembourg
- 2018 **UML Consistency Rules - Benchmark**  
D. Torre, Y. Labiche, M. Genero, M. Elasaar  
UML Consistency Rules: a Case Study with Open-Source UML Models  
<https://github.com/yvanlabiche/UML-model-consistency/>

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## Presentations

### Invited Presentations

- 10/2023 **Introduction to Machine Learning**  
Greehey School of Business, St. Mary's University  
San Antonio, Texas, United States
- 08/2023 **Challenges and Weaknesses in AI-based Cybersecurity Attack Detection**  
St. Mary's University, New Faculty Debut 2023  
San Antonio, Texas, United States  
<https://palimpsest.stmarytx.edu/thanneken/2023/debut/>
- 10/2020 **The Future of Automated Software Reliability Engineering**  
31st International Symposium on Software Reliability Engineering (ISSRE 2020), Virtual  
<https://2020.issre.net/>

- 12/2019 **AI-assisted approach for checking the completeness of privacy policies against GDPR**  
SnT/Linklaters Collaboration GDPR Project  
Linklaters, London, United Kingdom
- [Academic Conference Presentations](#)
- 11/2022 **Impact analysis of the vulnerabilities of AI-based techniques used to detect cybersecurity attacks**  
DARPA Riseers co-located DARPA Forward Conference 2022  
College Station, Texas, United States
- 06/2020 **UML consistency rules: a case study with open-source UML models**  
8th IEEE/ACM International Conference on Formal Methods in Software Engineering (FormalISE), Virtual  
<https://conf.researchr.org/home/icse-2020/Formalise-2020>
- 09/2019 **Using models to enable compliance checking against the GDPR: an experience report**  
22nd ACM/IEEE International Conference on Model Driven Engineering Languages and Systems, (MODELS)  
Munich, Germany  
<https://modelsconf19.org/>
- 10/2016 **Verifying the consistency of UML models**  
27th IEEE International Symposium on Software Reliability Engineering Workshops (ISSRE)  
Ottawa, Ontario, Canada  
<https://2016.issre.net/>
- 09/2016 **How sustainable are model software artifacts in the context of model driven software engineering**  
3rd International Workshop on Measurement and Metrics for Green and Sustainable Software Systems (MeGSuS) co-located with ESEM  
Ciudad Real, Spain
- 11/2015 **On validating UML consistency rules**  
26th IEEE International Symposium on Software Reliability Engineering Workshops (ISSRE)  
Gaithersburg, Maryland, United States  
<https://2015.issre.net/>
- 11/2015 **UML consistency rules in technical books**  
26th IEEE International Symposium on Software Reliability Engineering Workshops (ISSRE)  
Gaithersburg, Maryland, United States  
<https://2015.issre.net/>
- 05/2014 **UML consistency rules: a systematic mapping study**  
8th International Conference on Evaluation and Assessment in Software Engineering (EASE)  
London, United Kingdom
- 05/2014 **On collecting and validating UML consistency rules: a research proposal**  
8th International Conference on Evaluation and Assessment in Software Engineering (EASE)  
London, United Kingdom

09/2009 **CQA-ENV: an integrated environment for the continuous quality assessment of software artifacts**

8th International Conference on New Trends in Software Methodologies, Tools and Technique (SoMeT)

Prague, Czech Republic

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## Other skills

Software Engineering, Computer Science, Machine Learning, Deep Learning, Natural Language Processing, Cybersecurity, Python, Jupyter Notebook, Java, Anaconda, C++, Eclipse, Enterprise Architecture, Git, L<sup>A</sup>T<sub>E</sub>X, Leadership, Data Analysis, Linux, Mentoring, Modeling, MySQL, GDPR, Object Oriented Design and Programming, Project Management, Regulatory Compliance, Requirements Analysis, SQL, Supervising, Team management, Unified Modelling Language, Object Constraint Language, XML

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## Languages

Italian native

English, Spanish fluent

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## Hobbies

Cooking, hiking, and gardening