ANTONELA TOMMASEL ISISTAN Research Institute, CONICET- UNCPBA Campus Universitario - Paraje Arroyo Seco Tandil, Buenos Aires, Argentina

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Google Scholar Profile. https://scholar.google.com.ar/citations?user=5VFSMUwAAAAJ

### **Current Position**

2019-~ **Full-time Assistant Researcher** at Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET, National Council on Scientific and Technical Research), Argentina.

"Recommendation of Trustworthy Users in Social Media based on Heterogeneous Information"

Research Interests: Recommender Systems – Social Media – Misinformation – Social Computing – Text Mining

Assistant Professor at Facultad de Ciencias Exactas, Universidad Nacional del Centro de la Provincia de Buenos Aires (UNCPBA University), Buenos Aires, Argentina. Graduate and undergraduate courses

### **Graduate Education**

### 2013-2017 PhD in Computer Science

Thesis Title: A Social-aware Online Short-text Feature Selection Technique for Social Media

Advisor: PhD Daniela Godov

Universidad Nacional del Centro de la Provincia de Buenos Aires (UNCPBA University)

Tandil, Buenos Aires, Argentina

Courses taken:

Epistemology and Methodology of Sciences. Introduction to Evolutionary Computing. Architecture Driven Design Methodologies. Parallel and Distributed Computing. Introduction to Planning Algorithms. Web Data Mining. Tools for Internet Application Development. Electronic Commerce and Mobile Computing. Strategies for Cross-Cutting Concern Separation.

# Education

2008-2012 Bachelor in Software Engineering UNCPBA University. Tandil, Buenos Aires, Argentina. Grade Average: 9.47/10 2008-2011 Programmer Analyst (Minor degree) UNCPBA University. Tandil, Buenos Aires, Argentina

## Other Certificates (selection)

- Fundamentals of Accelerated Data Science with RAPIDS (2022) NVIDIA Deep Learning Institute Certificate ID: db4bbcc2dc1b4d50b9d666c934125772
- Data Visualization with Tableau Specialization (2022) UC Davis at Coursera Fundamentals of Visualization with Tableau Essential Design Principles for Tableau
- Information Visualization: Foundations (2022) NYU at Coursera Certificate ID: JPZHR5BY3EMK
- Building Intelligent Recommender Systems (2021) NVIDIA Deep Learning Institute Certificate ID: 440cbe95e85046879a959519c2a7d1f8
- Applications of AI for Anomaly Detection (2021) NVIDIA Deep Learning Institute Certificate ID: bd586facf5ad44f59433848c589a99d2
- Statistics with Python Specialization (2021) University of Michigan at Coursera Certificate ID: VLP6MXRN3ENA Fitting Statistical Models to Data with Python Inferential Statistical Analysis with Python Understanding and Visualizing Data with Python
- Kotlin for Java Developers (2020) JetBrains at Coursera Certificate ID: EPEJMCAPL3VG
- Deep Learning Specialization (2020) Coursera Credential ID: SQAPE39Z4UKR

  Sequence Models Convolutional Neural Networks Structuring Machine Learning Projects Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization Neural Networks and Deep Learning -
- Python for Everybody Specialization (2016) University of Michigan at Coursera Certificate ID: CDHGR6QQ79AP
- Mining Massive Datasets (2014) Stanford University at Coursera Certificate ID: FGVVRE9GUMMW

## Language Education

French DELF B1. CIEP - Centre international. Total Score: 93/100

DELF A2. CIEP - Centre international. Total Score: 94.75/100

Italian B2 Common European Framework of Reference for Languages. Dante Alighieri.
 Portuguese A2 Common European Framework of Reference for Languages. UNCPBA University.
 A2 Common European Framework of Reference for Languages. UNCPBA University.

## **Scholarships**

2022-2022 Fulbright Visitor Scholar (01/02/2022 – 30/04/2022) – Advisor: Filippo Menczer

Research Project: "To trust or not to trust: Enhancing recommendations in the era of misinformation"

2018-2019 Post Doctoral Research Scholarship grant awarded by CONICET, Argentina.

Research Project: "Integrating Heterogeneous Information for User Recommendation in Social Media Networks"

2013-2018 Doctoral Research Scholarship grant awarded by CONICET, Argentina.

Research Project: "A Social-aware Online Short-text Feature Selection Technique for Social Media"

2011-2013 Undergraduate Research Scholarship grant awarded by Consejo Interuniversitario Nacional (CIN), Argentina.

# Internships

04/2020 - 06/2020 Research Internship at Università degli Studi di Milano-Bicocca – Advisor: Dr. Francesca Arcelli Fontana Research Project: "Evaluation of the architectural debt through different metrics and indexes" – cod 208050

06/2019 - 07/2019 Research Internship at Università Roma Tre - Advisor: Dr. Riccardo Torlone As part of the Young Investigator Training Program - AIKE 2019 sponsored by ACRI.

02/2011 - 08/2011 "Educational Platform SAVER" developed for the UNCPBA University. Technical Support.

SAVER is a platform for helping teachers to create and deliver effective online learning environments. One of the key features of the platform is the possibility of adapting the course presentation to the learning style of students.

## Publications (selection)

19 Journal publications, 2 book chapters and 30 conferences

The full list of publications is available at: <a href="https://tommantonela.github.io/publication/">https://tommantonela.github.io/publication/</a>

#### Journal

- Antonela Tommasel, J. Andrés Diaz Pace. (2022) "Identifying emerging smells in software designs based on predicting package dependencies" Engineering Applications of Artificial Intelligence. Elsevier. DOI: 10.1016/j.engappai.2022.105209
- Antonela Tommasel, J. Andrés Diaz Pace, Juan Manuel Rodriguez, Daniela Godoy. (2021) "Tracking the evolution of crisis processes and mental health on social media during the COVID-19 pandemic". *Behaviour & Information Technology*. Taylor & Francis. DOI: 10.1080/0144929X.2021.1998630.
- Antonela Tommasel, J. Andrés Diaz Pace, Juan Manuel Rodriguez, Daniela Godoy. (2021) "Forecasting mental health and emotions based on social media expressions during the COVID-19 pandemic". Information Discovery and Delivery. Emerald. DOI: 10.1108/IDD-01-2021-0003.
- <u>Antonela Tommasel</u>, Daniela Godoy. (2020) "Influence and Performance of User Similarity Metrics in Followee Prediction". Journal of Information Science. Sage. DOI: 10.1177/0165551520975359.
- <u>Antonela Tommasel</u>, Daniela Godoy, J.Andrés Diaz Pace (2020) "Towards an effective e-Participation: an analysis of the interaction and engagement of Argentine digital citizens". Electronical Journal of SADIO. Accepted.
- <u>Antonela Tommasel</u>, Alejandro Corbellini, Daniela Godoy, Silvia Schiaffino. (2015) "Exploring the role of personality traits in followee recommendation". Online Information Review. Emerald. 2015. 39:6, 812-830. DOI: 10.1108/OIR-04-2015-0107.

# **Conference Proceedings**

- <u>Antonela Tommasel</u>, Filippo Menczer. "Do Recommender Systems Make Social Media More Susceptible to Misinformation Spreaders?". In proceedings of the 16th ACM Conference on Recommender Systems. Association for Computing Machinery. Seattle, USA. DOI: 10.1145/3523227.3551473
- <u>Antonela Tommasel</u>, Juan Manuel Rodriguez, Filippo Menczer. "Following the trail of fake news spreaders in social media: A deep learning model". In 30th ACM Conference on User Modeling, Adaptation and Personalization. Barcelona, España. DOI: 10.1145/3511047.3536410
- <u>Antonela Tommasel</u>, Juan Manuel Rodriguez, Daniela Godoy. "Haven't I just listened to this?: Exploring diversity in music recommendations". In 30th ACM Conference on User Modeling, Adaptation and Personalization. Barcelona, España. DOI: 10.1145/3511047.3536409

- <u>Antonela Tommasel</u>, Juan Manuel Rodriguez, Daniela Godoy, "I Want to Break Free! Recommending Friends from Outside the Echo Chamber". In proceedings of the 15th ACM Conference on Recommender Systems. Association for Computing Machinery, Amsterdam, Netherlands. DOI: 10.1145/3460231.3474270
- Daniela Godoy, <u>Antonela Tommasel</u>. "Is my model biased? Exploring Unintended Bias in Misogyny Detection Tasks". In 1st Workshop on Adverse Impacts and Collateral Effects of Artificial Intelligence Technologies @ IJCAI-2021. Montreal, Canada.
- <u>Antonela Tommasel.</u> "Friend or Foe: Studying user trustworthiness for friend recommendation in the era of misinformation" In Proceedings of the IEEE Artificial Intelligence and Knowledge Engineering. (AIKE 2019) (pp. 273-276) Cagliary, Italy. (Best Paper Award)
- <u>Antonela Tommasel</u>, Juan Manuel Rodriguez, and Daniela Godoy (2018) "Textual Aggression Detection through Deep Learning". In Proceedings of the 1st Workshop on Trolling, Aggression and Cyberbullying at the 27th International Conference on Computational Linguistics (COLING 2018) (pp. 177-187) Santa Fe, USA.

# **Teaching Activities**

## **Current Teaching**

2022~ Assistant Professor at Facultad de Ciencias Exactas, UNCPBA.

Undergraduate Courses for Bachelor in Software Engineering:

Introduction to Computer Sciences

Introduction to Compilers Design

Graduate Courses for PhD in Computer Sciences / Undergraduate Courses for Bachelor in Software Engineering:

Advanced Java Programming Workshop

**Recommender Systems** 

# Advisory Activities (on going)

2021- ~ Advisory on Master Thesis - UNCPBA

Title: "Citizen engagement with eParticipation in social media"

Student: Julieta Carricondo Robino - Advisor: Dra. Antonela Tommasel

2021- ~ Advisory on the Final Project for opting for the Bachelor's Degree - UNCPBA

Title: "An image is worth a thousand words, or the other way around? Multimodal hate speech detection"

Students: Sofía Barceló – Magalí Boulanger - Advisors: Antonela Tommasel – Juan Manuel Rodriguez

2020-  $^{\sim}$  Advisory on the Final Project for opting for the Bachelor's Degree - UNCPBA

Title: "Detection, analysis and characterization of echo chambers in social media"

Student: Pablo Diez Minvielle - Advisors: Antonela Tommasel - Daniela Godoy

2020- ~ Advisory on the Final Project for opting for the Bachelor's Degree - UNCPBA University

Title: "Detection, analysis and characterization of echo chambers in social media " Student: Pablo Diez Minvielle - Advisors: Antonela Tommasel – Daniela Godoy

## Participation in Research Projects (selection)

- "Harm-aware social recommender systems" PICT ANPCyT. PI: Dra. Daniela Godoy
- "Developing large-scale harm-aware recommender systems for social media" NVIDIA Academic Hardware Grant Award. PI: Antonela Tommasel.
- "Mitigating misinformation in recommender systems". PIP 2021-2023 PI: Antonela Tommasel
- "Gender perspective in court ruling: Applying natural language processing for gender bias detection". UNCPBA University Pls: Laura Giosa Silvia Schiaffino
- "Mitigating misinformation in recommender systems". PICT ANPCyT PICT- 2019-2019-02620. PI: Antonela Tommasel
- "Online Harm-Aware Recommender System". Bilateral cooperation project CONICET ROYAL SOCIETY 2019. Pls: Daniela Godoy Arkaitz Zubiaga
- "Hate speech is in the eye of the beholder: Exploring bias on hate perception". Facebook Research Award as part of the "Content Policy Research on Social Media Platforms request for proposals". PI: Antonela Tommasel
- "Digital Citizens: The Role of Social Media in e-Participation in Argentina". UNCPBA. PI: Antonela Tommasel
- "Faking it! A fake news multi-sourced dataset powered by Social Media". Facebook Research Award as part of the "The Online Safety Benchmark request for proposals". Pl: Daniela Godoy. Co-principal Investigator: Antonela Tommasel

## Organization of Academic Events (selection)

- Oct-2021 Simposio Argentino de Inteligencia Artificial (ASAI) Argentinian Simposium in Artificial Intelligence 50 JAIIO Online. Octubre 2021 Role: Chair.
- Sep-2021 Second *Workshop on Online Misinformation- and Harm-Aware Recommender Systems (OHARS)* ACM RECSYS 2021. Hybrid. Online-Amsterdam, Netherlands. Role: Workshop Organizer.
- Sep-2019 ACM SIGCHI Summer School on User Modelling and Personalization in Urban Computing Barcelona, Spain. September 9th-13th. Role: Summer School Organizer.

# Science Communication Activities (selection)

- 2022 "Meeting of the Minds". Organized by School of Education Global and International Initiative Indiana University
- 2021 Interview for Governeo: "Present and future of eParticipation: The role of AI". Available at: https://bit.lv/2UTtYfG
- 2021 What Twitter tells us about the COVID-19 crisis and its effects on mental health in Argentina Science communication post in Medium. Available at: <a href="https://bit.ly/3wjkZko">https://bit.ly/3wjkZko</a>
- 2021 Interview for INFOBAE: "Through Twitter posts, Argentine researchers can predict peaks of anxiety in the population". Available at: <a href="https://bit.ly/2STESRG">https://bit.ly/2STESRG</a>
- 2018 Campus en Acción 2018 UNCPBA University
  Activities for promoting the undergrad studies at STEM School.
- 2016 XIV Semana de la Ciencia Campus en Acción 2016 UNCPBA University

  "To code or not to code?" Speakers: Juan Manuel Rodriguez, Antonela Tommasel. The goal of the workshop is to introduce high school students into the coding world by creating a video game. To that end, science, physics and mathematical concepts will be put on play. Technologies: Java and Greenfoot

### **Invited Talks**

- 2020 "From smart cities to social cities: smart cities at the service of social good" Women in Data Science (WiDS) Dhahran, Saudi Arabia
- 2020 "Surviving to social media in the misinformation era" Talk at Women in Data Science (WiDS) La Paz, Bolivia
- 2019 "Keeping one-step ahead of architectural smells: A machine Learning Approach"
  Talk organized by Dr. Arkaitz Zubiaga. Queen Mary University
- "Friends or Foe: Recommending friends in the misinformation era"Talk organized by Dr. Riccardo Torlone. Dipartimento di Ingegneria Università Roma Tre

## **Evaluation Activities (selection)**

- 45th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2022)
- 2nd Workshop on Adverse Impacts and Collateral Effects of Artificial Intelligence Technologies @IJCAI (AlofAI 2022)
- 13th International Conference on Social Informatics (SocInfo'22) Senior Program Committee
- 16<sup>th</sup> ACM Recommender Systems conference (RecSys 2022) Track; Full track, Late Breaking Results & Demo
- 30th Conference on User Modeling, Adaptation and Personalization (UMAP 2022) Best reviewer
- 31th International Joint Conference on Artificial Intelligence (IJCAI 2022).
- Bias@ECIR2022 International Workshop on Algorithmic Bias in Search and Recommendation
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- The ACM Web Conference 2022 (TheWebConf)
- 15<sup>th</sup> ACM Recommender Systems conference (RecSys 2021) Track: Full track & Late Breaking Results
- ACM UMAP 2021 International Conference on User Modeling
- Online Social Networks and Media ISSN: 2468-6964 VSI: Online Harms
- Information Processing and Management ISSN: 1873-5371 VSI: Algorithmic bias and Fairness
- 30th International Joint Conference on Artificial Intelligence (IJCAI 2021). Senior Program Committee Member.
- RecSys 2020 Track: Late Breaking Results
- Bias@ECIR2020 International Workshop on Algorithmic Bias in Search and Recommendation
- 3rd International Workshop on Rumours and Deception in Social Media (RDSM 2020), co-located with COLING 2020. Part of the Program Committee.
- Bias@ECIR2020 International Workshop on Algorithmic Bias in Search and Recommendation
- 29th International Joint Conference on Artificial Intelligence (IJCAI 2020)