GIOVANNI TOTO

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ABOUT ME

DATE OF BIRTH: May 12, 1997
PLACE OF BIRTH: Padova, Italy
NATIONALITY: Italian

CURRENT POSITION

OCT. 2022 - ONGOING

PhD student in Statistics

Department of Statistical Sciences, University of Padova

Supervisor: Antonio Canale

VISITING PERIODS

MARCH 2024 - ONGOING

Department of Statistics and Data Sciences, University of Texas at Austin

Supervisors: Peter Müller, Abhra Sarkar

EDUCATION

OCT. 2019 - MARCH 2022

Master's degree in Statistical Sciences

Department of Statistical Sciences, University of Padova Thesis title: A Topic Modeling Algorithm for Microblogs

Supervisor: Emanuele Di Buccio Final mark: 110/110 cum laude

OCT. 2016 - Nov. 2019

Bachelor's degree in Statistics for Technology and Science

Department of Statistical Sciences, University of Padova

Thesis title: Design and Implementation of a Video Search Engine and a Graphical

User Interface for Sentiment Analysis

Supervisors: Massimo Melucci, Emanuele Di Buccio

Final mark: 101/110

RESEARCH ACTIVITIES

JUNE 2022 - OCT. 2022

Research fellowship

Department of Statistical Sciences, University of Padova

Title: Development of R libraries for the implementation of Bayesian models for

sc-RNA-seq data

Supervisors: Antonio Canale, Davide Risso

Implementation in R and C++ of Bayesian models for sc-RNA-seq data.

MARCH 2020 - APRIL 2020

Research fellowship

Department of Information Engineering, University of Padova

Title: Design, implementation, and use of a computer system for online acquisition

of multimodal documents and real-time opinion analysis

Supervisor: Massimo Melucci

Design and implementation of a graphical interface allowing real-time analysis of

opinions expressed in a video through multimodal sentiment analysis.

RESEARCH INTERESTS

- Bayesian nonparametrics
- Density estimation
- Functional data analysis
- Random partition models

PUBLICATIONS

- [1] Toto, G., & Di Buccio, E. (2022). A modular approach to topic modeling for heterogeneous documents. In G. Pasi, P. Cremonesi, S. Orlando, M. Zanker, D. Massimo, & G. Turati (Eds.), Proceedings of the 12th italian information retrieval workshop 2022, milan, italy, june 29-30, 2022. CEUR-WS.org
- [2] Li, Q., Stefani, A., Toto, G., Di Buccio, E., & Melucci, M. (2020). Towards multimodal sentiment analysis inspired by the quantum theoretical framework. 3rd IEEE Conference on Multimedia Information Processing and Retrieval, MIPR 2020, Shenzhen, China, August 6-8, 2020, 177–180

PREPRINTS

- [1] Toto, G., & Canale, A. (202+). Bayesian local clustering of functional data via semi-markovian random partitions
- [2] Canale, A., Galtarossa, L., Risso, D., Schiavon, L., & Toto, G. (202+). Structured factorization for single-cell gene expression data

CONFERENCE PRESENTATIONS

- [1] Poster: Bayesian multivariate density regression with coordinate-wise predictor selection; BOSS 2025, College Station, Texas (April 2025)
- [2] Poster: Local Bayesian clustering for functional data; ISBA 2024, Venice, Italy (July 2024).
- [3] Poster: Local Bayesian clustering for functional data; BAYSM 2024, Venice, Italy (June 2024).
- [4] Contributed talk: A modular approach to topic modeling for heterogeneous documents; IIR 2022, Milan, Italy (June 2022).

AWARDS

• Best poster award at ISBA 2024, Venice, Italy (July 2024).

PROGRAMMING SKILLS

ADVANCED: PYTHON, R
INTERMEDIATE: C++, LTEX, mysql