# Pierre Colombo

PhD student in NLP

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I am a second year PhD student in the SSA group at Telecom Paris and IBM in Paris. My PhD focuses on Deep Learning applied to Natural Language.

#### Education

- 2018–2021 **Phd Student**, Department of Computer Science, Telecom Paris, Paris, France.
- 2016–2018 **MSC** in Computer Science, Department of Computer Science, EPFL, Lausanne, Switzerland.
- 2014–2018 **MSC in Applied Mathematics**, Department of Computer Science, CentraleSupelec, Paris, France.
- 2012–2014 Preparatory School MPSI MP\*, Lycee Condorcet, Paris, France.

### Experience

- 2018-Present Phd Student at Telecom Paris and IBM, Paris (France) working on Dialog Generation.
  - 2018 6 Month Lab Associate at Disney Research, Los Angeles (USA) working on Representation Learning.
  - 2017-2018 6 Month Research Student at **IBM Research, Zurich (Swizerland)** Thesis entitled : Deciphering gene deregulation in cancer development using deep learning.
    - 2017 6 Month Research Student at **Swisscom Research, Lausanne (Swizerland)** working on chatbots.
  - 2016-2017 12 Month Teaching Assistant at **EPFL**, **Lausanne** (**Swizerland**) helping student to solve mathematics and physic exercises during exercise sessions.
    - 2017 6 Month Lab Assistant in the **Quantum Physic Department of EPFL, Lausanne (Swizerland)** developing various sensors algorithms (Python/C++).
    - 2017 6 Month Research Intern at **Procter & Gamble, Frankfurt (Germany)**, development and implementation of a secure application (Android and IOs) to enable a smartphone user to update a toothbrush over-the-air.
  - 2014-2018 20 Months Software Consultant at **Supelec & EPFL Junior Enterprise**, debugging web applications developed with Symphony 2 for the French Army, and developing several websites (http://www.volumina-medical.ch/).

#### Publications

- Pierre Colombo(\*), Emile Chapuis(\*), Matteo Manica, Emmanuel Vignon, Giovanna Varni, and Chloé Clavel. Guiding attention in sequence-to-sequence models for dialogue act prediction. AAAI 2020, abs/1908.11216, 2020
- 2. Pierre Colombo(\*), Wojciech Witon(\*), Ashutosh Modi, James Kennedy, and Mubbasir Kapadia. Affect-driven dialog generation. *NAACL 2019*, abs/1904.02793, 2019
- Alexandre Garcia(\*), Pierre Colombo(\*), Slim Essid, Florence d'Alché-Buc, and Chloé Clavel. From the token to the review: A hierarchical multimodal approach to opinion mining. EMNLP 2020, abs/1908.11216, 2019
- 4. Wojciech Witon(\*), Pierre Colombo(\*), Ashutosh Modi, and Mubbasir Kapadia. Disney at IEST 2018: Predicting emotions using an ensemble. In Alexandra Balahur, Saif M. Mohammad, Véronique Hoste, and Roman Klinger, editors, *Proceedings of the 9th Workshop on Computational Approaches to Subjectivity, Sentiment and Social Media Analysis, WASSA@EMNLP 2018, Brussels, Belgium, October 31, 2018*, pages 248–253. Association for Computational Linguistics, 2018
- 5. H. Jalalzai(\*), P. Colombo(\*), C. Clavel, E. Gaussier, G. Varni, E. Vignon, and A. Sabourin. Heavy-tailed representations, text polarity classification & data augmentation. *NeurIPS 2020*, abs/1904.02793, 2020
- 6. Emile Chapuis(\*), Pierre Colombo(\*), Matteo Manica, Matthieu Labeau, and Chloé Clavel. Hierarchical pre-training for sequence labelling in spoken dialog. *Finding of EMNLP 2020*, abs/1904.02793, 2019
- Tanvi Dinkar(\*), Pierre Colombo(\*), Matthieu Labeau, and Chloé Clavel. The importance of fillers for text representations of speech transcripts. EMNLP 2020, abs/1904.02793, 2019

# Preprint

- 1. Pierre Colombo, Pablo Piantanida, and Chloé Clavel. Learning to disentangle textual representations and attributes via mutual information. 2020
- 2. Pierre Colombo, Ccjack, Giovanna Varni, and Chloé Clavel. Beam search with bidirectional strategies. 2020

# **Patents**

 Affect Driven Dialog Generation, Ashutosh Modi, Mubbasir Kapadia, Douglas A. Fidaleo, James R. Kennedy, Wojciech Witon and Pierre Colombo, US Patent Pending, A framework for Affective Conversational System

## Languages

English Business fluent
French Native speaker
German Upper intermediate

#### Miscellaneous

Sport Handball, Athletics: marathons, ultra-trails

Music Studied music theory and trumpet for 12 years at conservatoire

Volunteer In charge of a Student Group which helps youths living in disadvantaged areas.

Work