32 rue Blance
75009 Paris
France
+39 349883716
dragone.paolo@gmail.com
paolodragone.com
paolodragone
paolodragone

Paolo Dragone

Work experience

May 2019 – **Machine Learning Engineer**, *Criteo*, Paris, France.

2018 **Research Intern**, *Spotify*, London, UK.
Contextual bandits for playlist recommendation leveraging listening patterns within different user groups.
Mentors: Mounia Lalmas and Rishabh Mehrorta

2012 – 2013 **Software Engineer**, *Brains Engineering*, Rome, Italy.
Full-stack web development in C#/ASP.NET and Java (`www.brainsen.com`).

Education

2015 – 2019 **PhD, Computer Science**, *University of Trento*, Italy.
Coactive Learning Algorithms for Constructive Preference Elicitation
Advisor: Prof. Andrea Passerini

2013 – 2015 **MS, Computer Science**, *Sapienza University of Rome*, Italy, *110/110 cum laude*.
Non-Sentential Utterances in Dialogue: Experiments in Classification and Interpretation
Advisor: Prof. Roberto Navigli

2010 – 2013 **BS, Computer Science**, *Sapienza University of Rome*, Italy, *110/110*.

Skills

ML & AI Machine learing · deep learning · structured-output prediction · online learning · convex optimization · recommendation systems · statistical learning theory · reinforcement learning · natural language processing · dialogue systems · computer vision · data mining · constrained optimization

CS Algorithms and data structures · computability and complexity · software engineering · system design · parallel computing · concurrent programming · distributed systems · databases

Math Linear algebra · geometry · calculus · probability theory and statistics

Programming Python · Java · SQL · MiniZinc · Javascript · C# · C++

Frameworks NumPy · Scikit-learn · Pandas · Keras · Tensorflow · Hadoop

OS & tools Linux · Bash · Git · Vim · MacOS · Google Cloud Platform

Languages English (high level of proficiency, TOEFL ibt 99/120) · Italian (mother tongue)

Others Ability to convey scientific findings to both expert and non-expert audience, by means of written papers and oral presentations. Ability to plan and carry out research work and activities, both autonomously and cooperatively.

Other activities

2018 **Proceeding chair for the AIxIA 2018 conference**, *FBK, University of Trento*, Italy.

2016 – 2018 **Sub-reviewer for AAAI 2017, AAAI 2018, ICML 2018**, *Trento*, Italy.

2016 – 2018 **Master students co-supervisor**, *University of Trento*, Italy.
(2018) Hao Qiu, *Deep Structured Gradient Boosting*.
(2018) Carlo Nicolò, *Neural Constrained Structured Prediction*.
(2018) Gianluca Apriceno, *Structured Prediction in Embedding Space*.
(2017) Marco Mancini, *Recipe Creation with Input Convex Neural Networks*.
(2017) Federico Marinelli, *Set-wise Preference Perceptron for Constructive Preference Elicitation*.
(2017) Federico Giannoni, *Utility Boost: Automatic Feature Extraction for Constructive Preference Elicitation*.
(2017) Luca Erculiani, *Constructive Layout Synthesis and Recommendation via Optimization Modulo Theory*.
(2017) Maurizio Astegher, *Automatic Feature Extraction for Coactive Learning*.
(2016) Lingzhen Chen, *Recipe Completion Using Machine Learning Techniques*.

2016 – 2018 **Teaching assistant**, *University of Trento*, Italy.
Machine Learning (graduate level).

2017 **RecSys Summer School 2017**, *University of Bolzano*, Italy.

2017 **Google Machine Learning Summit**, Zurich, Switzerland.

2017 **Visiting PhD student**, *University of Darmstadt*, Germany.
Host: Prof. Kristian Kersting

2017 **Visiting PhD student**, *University Pierre et Marie Curie*, Paris, France.
Host: Dr. Paolo Viappiani

2016 **Machine Learning Summer School**, *University of Cádiz*, Spain.

2015 **Master Thesis Abroad**, *University of Oslo*, Norway.
Advisor: Dr. Pierre Lison

2014 **Exchange Program**, *University of Melbourne*, Melbourne, Australia.

Open source projects

Pyconstruct, A Python library for structured-output prediction over combinatorial domains.
`https://github.com/unitn-sml/pyconstruct`

PyMzn, A Python interface for the MiniZinc constraint programming language.
`https://github.com/paolodragone/pymzn`

Personal qualities

Open minded, sociable, lifelong learner. Passionate about science and technology in general. Love to engage discussions about fascinating ideas and interesting news.

Publications

Paolo Dragone, Rishabh Mehrotra, and Mounia Lalmas. **Deriving User- and Content-specific Rewards for Contextual Bandits**. In *Proceedings of the International World Wide Web Conference (WWW)*, 2019.

Paolo Dragone, Pellegrini Giovanni, Michele Vescovi, Katya Tentori, and Andrea Passerini. **No More Ready-made Deals: Constructive Recommendation for Telco Service Bundling**. In *Proceedings of the 12th ACM Conference on Recommender Systems (RecSys 2018)*, 2018.

Luca Erculiani, Paolo Dragone, Stefano Teso, and Andrea Passerini. **Automating Layout Synthesis with Constructive Preference Elicitation**. In *Proceedings of the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD 2018)*, 2018.

Paolo Dragone, Stefano Teso, and Andrea Passerini. **Pyconstruct: Constraint Programming meets Structrued Prediction**. In *Proceedings of the Twenty-Seventh International Joint Conference on Artificial Intelligence (IJCAI-18)*, 2018.

Paolo Dragone, Stefano Teso, Mohit Kumar, and Andrea Passerini. **Decomposition Strategies for Constructive Preference Elicitation**. In *Proceedings of the 32st AAAI Conference on Artificial Intelligence*, 2018.

Paolo Dragone, Stefano Teso, and Andrea Passerini. **Constructive Preference Elicitation over Hybrid Combinatorial Spaces**. In *Proceedings of the 32st AAAI Conference on Artificial Intelligence*, 2018.

Paolo Dragone, Stefano Teso, and Andrea Passerini. **Constructive Preference Elicitation**. *Frontiers in Robotics and AI*, 4, 2018.

Paolo Dragone. **Constructive Recommendation**. In *Proceedings of the Eleventh ACM Conference on Recommender Systems*, pages 441–445, 2017.

Stefano Teso, Paolo Dragone, and Andrea Passerini. **Coactive Critiquing: Elicitation of Preferences and Features**. In *Proceedings of the 31st AAAI Conference on Artificial Intelligence*, pages 2639–2645, 2017.

Paolo Dragone, Luca Erculiani, Maria Teresa Chietera, Stefano Teso, and Andrea Passerini. **Constructive Layout Synthesis via Coactive Learning**. In *Constructive Machine Learning Workshop at NIPS*, 2016.

Paolo Dragone and Pierre Lison. **Classification and Resolution of Non-Sentential Utterances in Dialogue**. *Italian Journal of Computational Linguistics*, 2(1):45–62, 2016.

Stefano Teso, Paolo Dragone, and Andrea Passerini. **Structured Feedback for Preference Elicitation in Complex Domains**. In *BeyondLabeler Workshop at IJCAI 2016*, 2016.

Paolo Dragone. **Non-Sentential Utterances in Dialogue: Experiments in Classification and Interpretation**. Master's thesis, Sapienza University of Rome, 2015.

Paolo Dragone and Pierre Lison. **An Active Learning Approach to the Classification of Non-Sentential Utterances**. In *Proceedings of the Second Italian Conference on Computational Linguistics*, pages 115–119, 2015.

Paolo Dragone and Pierre Lison. **Non-Sentential Utterances in Dialogue: Experiments in classification and interpretation**. In *Proceedings of the 19th Workshop on the Semantics and Pragmatics of Dialogue*, pages 170–171, 2015.