Ugo **Tanielian**

PhD in Statistics & Machine Learning · Deep Learning engineer

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Summary

- Interests: computer vision, NLP, recommendation algorithms, deep learning theory and the robustness of machine learning models.

- Languages & packages: python, java, scala, pytorch, tensorflow, pyspark.

Work Experience

Criteo AI Lab
Paris, France

Machine Learning researcher
Apr. 2021 - Now

- Working on several Computer Vision related projects: multi-modal embeddings, visual search for marketing, image manipulation with Transformers, generative networks theory, and 3D generation.
- Worked on a proof of concept tool to create better products for existing users. The aim of the PoC is to predict simultaneously the description of the target product and its visualization. In the project, both text2text modeling and a text2image generation are involved.
- Worked on the development of privacy preserving Machine Learning algorithms suited for the online ad industry.

Criteo AI Lab
Paris, France

CIFAR PhD candidate
Oct. 2017 - Apr. 2021

- The main topic of the thesis was the study of theoretical and practical properties of Generative Adversarial Networks (GANs), an algorithm widely used in the Machine Learning community to generate images that are both realistic and diverse.
- Supplementary applied research, closer to industrial applications dealt with:
  - the development of a new sampling algorithm suited for training neural nets with a large vocabulary (recommendation algorithms, NLP).
  - the design of a robust Machine Learning network optimized for recommendation.
- *Achievements:* published several papers in top international conferences and journals.

Criteo AI Lab
Paris, France

Intern, Research & Development team
April 2017 - Sept. 2017

- Dealing with the topic of Cross-Device matching: creating a deep-learning based end-to-end solution to improve current models.
- *Achievements:* top scoring algorithm in a ML competition and deployment of the solution in production.

Commerzbank AG
London, United Kingdom

Trader & Quant assistant: Indices team
June. 2015 - July. 2016

- Pricing Hybrid derivative products, correlation, and volatility. Analyzing trading strategies on both mid-term and long-term perspectives.
- Implemented a tool improving the calibration of financial models for specific products based on index rates.
- *Achievements:* Development of a new automatized vanilla pricing platform and a stress risk visualization tool.

Education

Sorbonne Universite, LPSM
Paris, France

PhD candidate in mathematics
Sept. 2017 - April 2021

- Major in Statistics.

Sorbonne Universite, LPSM
Paris, France

Masters in Probability
Sept. 2016 - April 2017

- Major in Stochastic Processes, Markov Chains, and Statistical Learning.

Mines Paristech
Paris, France

Masters in Science engineering
Sept. 2013 - June 2017

- Major in Geostatistics and Probability.

Lycée les Lazaristes, MP
Lyon, France

Preparatory classes
Sept. 2011 - June 2013

- Two-year intensive program in both Maths and Physics.

Extracurricular Activity

- Computer Science: working on visualizations for open, public datasets mixing public policies and economics.
- Sports: boxing, tennis, and cross-country running.
- Music: Bob Dylan fan.