

Yoan Russac

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Education

- ENS Paris, PhD in Machine Learning** **Paris, France**
Under the supervision of Olivier Cappé and Aurélien Garivier *2018–2021*
PhD title : Sequential Methods for Robust decision making
- ENS Paris-Saclay- MVA, MSc in Machine Learning** **Paris, France**
Obtained with highest honours *2017–2018*
Relevant courses : Graphs in Machine Learning, Unsupervised Learning, Deep Learning, Natural Language Processing, Statistics and the curse of dimensionality, Reinforcement Learning.
- ENSAE Paristech- Engineering Degree in Statistics** **Paris, France**
National School of Statistics and Economic Administration *2015–2018*
Entrance by competitive examination after *classes préparatoires (CPGE)*
Relevant Courses : Online Learning, Python, Statistics, Probability, Data Analysis, Stochastic Process, Geometric Methods in Machine Learning, Compressed Sensing (*2016-2017 GPA : 4/4, 2017-2018 GPA : 4/4*)

Work Experience

- Amazon- Applied Scientist Intern** **Berlin, Germany**
Under the supervision of Claire Vernade (DeepMind) *June-October 2018*
Research on bandits theory, creation of a new contextual bandit algorithm more robust to non-stationarity
- Atos Worldline- Machine Learning Researcher Intern** **Brussels, Belgium**
Under the supervision of Olivier Caelen *June-September 2017*
Research on fraud detection and embeddings for variables. Findings resulted in a scientific publication.
- Attractive World- Data Analyst Intern** **Paris, France**
Clustering of users of this French Startup *June-September 2016*
- Prediction of the likelihood of users subscribing to the website (Logistic Regression, SVM)
- Significant improvements in subscription outcomes for the company with the new scoring scale I developed

Main Projects

- Recommendation System for Dassault Systems (Python)**
Recommendation of articles to create a news feed (Proximal Gradient Descent, Matrix Completion).
Grade : 19/20 (equivalent A++, ranked 1st/30 in class)
- Clustering of Bandits (Python)**
3 months project with a MVA student (Graph, Machine Learning, Bandits). Grade : 17/20 (A+)
github.com/YRussac/Online_Clustering_Context_Dependent_Recom
- Reinforcement Learning and Tetris (C++)**
Q-Learning for Tetris game. github.com/schechtman/Tetris-Q-Learning-in-Cpp. Grade : A++ (ranked 1st/50 in class)
- Network Graph Analysis with Stochastic Tools (Python)**
6-months project supervised by a researcher and a PhD student in Statistics (Adil Salim). Implementation of different methods to measure the centrality of vertices in graphs. Application of network analysis on to Twitter data during the 2017 French elections. Grade : 18.5/20 (A++)
github.com/YRussac/French_Presidential_Election_Twitter_Markov_Process

Publication

Yoan Russac, O. Caelen, and L. He-Guelton. Embeddings of categorical variables for sequential data in fraud context. In *International Conference on Advanced Machine Learning Technologies and Applications (AMLTA2018)*. Springer International Publishing, 2018.

Yoan Russac, C. Vernade, and O. Cappé. Weighted linear bandits for non-stationary environments. In *Proceedings of NeurIPS 2019*.

Miscellaneous

- **Languages** : French (Native), English (C1, TOEFL 110/120), German (B1-B2), Spanish (A2-B1)
- **Softwares** : Python (strong skills), R (strong skills), C++(basics), SAS, Matlab/Octave
- **Interests** : Oenology, Hackathon, Traveling, Skiing, Running, Piano