Antoine J.-P. Tixier (short CV) antoine.tixier-1@colorado.edu
5+ years of experience in data science webpage: http://www.lix.polytechnique.fr/Labo/Antoine.Tixier/

PROFESSIONAL EXPERIENCE

2015-current **ÉCOLE POLYTECHNIQUE, Palaiseau, France**
Postdoctoral researcher, Computer Science Laboratory, Data Science and Mining Team (DaSciM)
Applied researcher within a group developing solutions for clients including Airbus, SNCF, FDJ, the French government…
Leader of subproject #5 of OpenPaaS::NG (11M€ project): automated text summarization, keyword extraction & recommendation.
Gained expertise in network analytics, NLP, deep learning, information retrieval, data visualization.
Publications in top international conferences: ACL'16, EMNLP'16, EACL'17. Supervision of 6 X 3rd year students (Spring '16 and '17).

Spring 16/17 (2*3 months) *Teaching Assistant, Text mining (undergrad level) & Advanced learning for graph and text data (grad level)*
Topics covered: information retrieval, keyword extraction, document classification, graph-of-words, graph kernels, community detection, identification of influential spreaders in social networks, influence maximization, word embeddings, deep learning for NLP.
Mission: Weekly 2-hour lab sessions (~30 undergrads, ~80 grads) to illustrate the topics covered in class on real data sets with Python. Creation and administration of two Kaggle in-class competitions to evaluate the students.

2012-2015 **COLORADO CONSTRUCTION SAFETY LABORATORY, Boulder, USA**
Graduate Research Assistant on a $400,000 National Science Foundation (NSF) project
Project title: predictive modeling of construction injuries in complex environments. 5 papers in top international research journals.
NLP, Data Mining and Machine Learning. Data cleaning, diagnostics, and visualization.
Developed predictive models for major US construction companies: Kiewit, Jacobs, Bentley Systems… Bi-monthly reporting to clients (conf calls, presentations), vulgarization of the results. Collaboration with clients' IT teams to help put my systems into production.

Spring 2014 (5 months) **UNIVERSITY OF COLORADO AT BOULDER, USA**
Teaching Assistant, Probability and Statistics (undergraduate level)
Topics covered: probability theory, random variables and probability distributions, covariance, stochastic processes, parameter estimation, probability density estimation, confidence intervals, statistical inference, hypothesis testing, regression/correlation analyses.
Mission: held bi-weekly office hours to help students with homework assignments and the topics covered in class (~ 15 students), replaced instructor when away, 6 times throughout the semester (~ 85 students). Designed and graded midterms and finals.

2011 (4 months) **ARTIS CONSTRUCTION, Paris area, France**
Junior Site Manager, construction of two office buildings for 12M€

2010 (2 months) **CITY OF MONTREAL, Quebec, Canada**
Junior City Engineer, "Le Sud-Ouest" district

COMPUTER SKILLS
R, Python, R Shiny, Spark, cluster computing, parallel processing, LaTeX, HTML
Win/Unix

LANGUAGES
English: fluent
French: native

EDUCATION

2013-2015 **UNIVERSITY OF COLORADO AT BOULDER, USA**
PhD, Civil Engineering. Statistical data analysis and risk modeling. GPA: 3.95/4.00
Program ranked 9th out of 145 in the US. Took courses in stochastic hydro-climatology with applications to weather forecasting.
Methods: CART, Bagging, Random Forest, Boosting, SVM, PCA, K-means, K-nn, hierarchical clustering, Kernel Density Estimation Copulas, Bootstrapping, risk analysis, extreme value theory, Monte Carlo simulation, nonparametric regression, time series analysis.

2011-2013 **UNIVERSITY OF COLORADO AT BOULDER, USA**
MS, Civil Engineering, Construction Engineering & Management. GPA: 3.88/4.00

2009-2011 **ÉCOLE SPÉCIALE DES TRAVAUX PUBLICS (ESTP), Paris, France**
Master's degree, Mechanical & Electrical Engineering. Merit-based selection for the double-degree program with CU Boulder.

OTHER INTERESTS
Tennis: 2011 regional vice-champion (Paris) with ESTP team, 1st division.
IT: Colorado Construction Safety Laboratory website maintainer (2012-2015)

2007-2009 **LYCÉE SAINTE-MARIE, Antony, France**
Classes préparatoires MPSI-MP: intense training in Math and Physics

MERIT-BASED HONORS AND AWARDS

Spring 2014 Best Teaching Assistant Award, Civil Engineering Department, CU Boulder
June 2013 Best Conference Paper Award, 120th American Society of Engineering Education (ASEE) Annual Conference, Atlanta, GA
April 2013 Doctoral Assistantship for Excellence Award, Civil Engineering Department, CU Boulder. Highest level of support offered by the department.