

# Aude Genevay

born 27/12/1991 in Bourgoin-Jallieu (France)

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<https://audeg.github.io>

## Education

## Research Positions

**2019 - Postdoctoral Researcher - CSAIL, MIT**  
Optimal Transport and Machine Learning  
Under supervision of J. Solomon, GDP group

## Education

**2015 - 2019 PhD in Mathematics - U. Paris Dauphine**  
« Entropy-Regularized Optimal Transport for Machine Learning »  
Under supervision of G. Peyré - PhD grant from Région Ile de France

**2013-2015 ENSAE ParisTech - Engineering degree - Major in Machine Learning, minor in Economics**  
Member of the student's team for data science competitions (Data Science Game)

**2014-2015 Master M2 MASH Machine Learning and Applications - ENS Cachan & U. Paris Dauphine**  
Summa Cum Laude - Rank : 1/20  
Thesis : « Transfer Learning for spoken dialogue systems »

**2013-2014 Master M2 EDP-MAD Mathematical Modeling - U. ParisDauphine**  
Summa Cum Laude (no ranking)  
Thesis : « Matching with unobserved heterogeneity »

**2012-2013 Master M1 MMD Mathématiques Appliquées - U. Paris Dauphine**  
Summa Cum Laude - Rank : 1/140

**2011-2012 Licence L3 MIDO Mathématiques Appliquées - U. Paris Dauphine**  
Magna Cum Laude - Rank : 6/120

## Awards - Grants

**2017** Google PhD Fellowship

**2015** Région Ile de France PhD Grant

**2012-2014** Master's grant from Fondation Sciences Mathématiques Paris (for academic excellence)

## Research Internships

**May-Aug. 2019 Google Paris** - advised by J.P. Vert  
Learning deep embedding for clustering high-dimensional data  
Application to plankton images

Tensorflow + Keras implementation from scratch

- May-Sept. 2015** **Orange Labs** - advised by R. Laroche  
Reinforcement Learning for spoken dialogue systems  
Java implémentation of a dialogue simulator  
Redaction of a paper accepted at AAMAS 2016
- June-Sept. 2014** **INRIA Roquencourt** - advised by G. Carlier and J.-D. Benamou  
Numerical methods for optimal transport, applications to the matching problem
- July-Aug. 2012** **U. Paris Dauphine** - advised by F. Forges  
Repeated bayesian games

## Publications

- A. Genevay, L. Chizat, F. Bach, M. Cuturi, G. Peyré « **Sample Complexity of Sinkhorn Divergence** » In : *International Conference on Artificial Intelligence and Statistics, 2019 (to appear)*
- A. Genevay, M. Cuturi, G. Peyré « **Learning Generative Models with Sinkhorn Divergences** » In : *International Conference on Artificial Intelligence and Statistics, 2018. p. 608-1617.*
- A. Genevay, M. Cuturi, G. Peyré, & F. Bach « **Stochastic Optimization for Large-scale Optimal Transport** » In : *Advances in Neural Information Processing Systems, 2016. p. 3440-3448.*
- A. Genevay & R. Laroche, « **Transfer Learning for User Adaptation in Spoken Dialogue Systems** » In : *Proceedings of the 2016 International Conference on Autonomous Agents & Multiagent Systems. International Foundation for Autonomous Agents and Multiagent Systems, 2016. p. 975-983.*

## Teaching

- 2017 - 2019** Machine Learning (M1 Info - Ecole Normale Supérieure)
- 2016 - 2017** Numerical Optimization (L3 Mido - U. Paris Dauphine)  
Machine Learning (M1 MMD - U. Paris Dauphine)
- 2015 - 2016** Lebesgue Integration (L3 Mido - U. Paris Dauphine)  
Introduction to probability theory (L1 Mido - U. Paris Dauphine)

## Service

- NeurIPS reviewer** 2018, 2019  
**AISTATS reviewer** 2019  
**ICML reviewer** 2019

## Additional Skills

<b>Languages</b>	English - fluent (numerous stays in the US)
	German - conversational (numerous stays in Germany)
<b>Programming</b>	Python (Scikit-learn, Tensorflow, Keras, Pytorch) (thousands of lines)
	Matlab, Java, R (basic knowledge)
<b>Other Interests</b>	Cycling, Hiking, Swimming, Cross-country skiing