

Resume

Alexandre DÉFOSSEZ
<https://ai.honu.io>

Education

- Dec 2016– **PhD on optimization, machine learning and music**
under the supervision of Francis Bach and Leon Bottou
Facebook AI Research PARIS / Sierra @ INRIA Paris
- 2013–2014 **Master 2 in Mathematics/Vision/Learning** with highest honors
École Normale Supérieure of Cachan – Cachan
- 2012–2013 **Master 1 in Mathematics**
École Normale Supérieure – Paris
- 2011–2012 **Licences in both Mathematics and Physics (French bachelor's degree)**
École Normale Supérieure – Paris
- 2009–2011 **Classes préparatoires aux grandes écoles (CPGE)** ¹
Specialized in Mathematics and Physics including courses of Computer Science
Sainte Geneviève highschool – Versailles
- 2009 **Baccalauréat général spécialité Mathématiques** with highest honors
Equivalent to a high school graduation diploma (major : Mathematics)
Gustave Eiffel highschool – Bordeaux

Work experience

- Oct 2014 – Dec 2015 **Software engineer**
Facebook – London
On the AML Platform team, working on large scale and distributed learning.
- Oct 2013 – July 2014 **Part time employee at Keevio**
Startup in Paris and San Diego
Developed frontend and backend of ML pipelines for audio, image and video processing for recommendation and tagging.
- 2012 – 2013 **Teaching assistant in formal calculus (with Maple) in CPGE**
Saint Louis highschool – Paris
- 2011–2012 **Oral examiner in CPGE in Mathematics**
Sainte Geneviève highschool – Versailles
- August 2011 **Summer job at hometown library**
Migration of the software and the database used to open source software
- August 2010 **Summer job at hometown library**

Internships

- Feb – July 2014 **Study of optimal sampling for stochastic gradient descent in the context of large scale learning.**
Directed by Francis Bach (ENS/INRIA) in the Sierra team at INRIA.
Paper presented at AI Stats 2015.²
- Apr 2013 – July 2014 **Software engineer intern**
Facebook – Menlo Park
Designed an automatic feature selection pipeline.
- June – July 2012 **Study of the links between statistical models (Potts model) in physics and representation theory (algebra)**
Directed by Pr. Jesper Jacobsen (Laboratory of fundamental physics, LPT at ENS Paris) and Pr. David Hernandez (Institut de Mathématiques at Jussieu University, Paris)

¹Preparatory class for very competitive exams two years after high school.

²Available at: http://www.di.ens.fr/~fbach/aistats_defossez_bach_with_supp.pdf