Jean-Baptiste Alayrac, Phd

Research Scientist

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Work Experience

2018 - present	**Deepmind**, *London, UK*, Research scientist. Working on computer vision and machine learning with Andrew Zisserman.
Autumn 2017	**Deepmind**, *London, UK*, Research internship. Working on computer vision and machine learning with Andrew Zisserman.
Summer 2014	**Oxford University**, *Oxford, UK*, Research internship. "Face aligment and its applications". Advised by Andrew Zisserman (Visual Geometry Group).
Summer 2013	**MIT**, *Cambridge, USA*, Research internship. "Explorations of porosity in fibers". Advised by Yoel Fink (*fibers@mit*). Grand Prize for a research internship awarded by the École polytechnique.

Education

2014-2018	**École normale supérieure**, *Paris, France*, PhD. PhD in machine learning and computer vision at Inria. Structured learning from video and natural language. Advised by Simon Lacoste-Julien, Josef Sivic and Ivan Laptev (Sierra and Willow teams).
2013-2014	**ENS Cachan and Télécom Paris Tech**, *Paris, France*, MSc. Master's degree in mathematics, computer vision and machine learning (MVA). Obtained with highest honors.
2010-2013	**École polytechnique**, *Palaiseau, France*, Diplôme de l'École polytechnique. Training in applied mathematics, physics and computer science (EE program).

Publications

Antoine Miech*, Dimitri Zhukov*, **Jean-Baptiste Alayrac**, Makarand Tapaswi, Ivan Laptev, Josef Sivic. HowTo100M: Learning a Text-Video Embedding by Watching Hundred Million Narrated Video Clips. *Technical Report* *equal contribution

Jonathan Uesato*, **Jean-Baptiste Alayrac***, Po-Sen Huang*, Rober Stanforth, Alhussein Fawzi, Pushmeet Kohli. Are Labels Required for Improving Adversarial Robustness? *Technical Report* *equal contribution

Jean-Baptiste Alayrac*, Joao Carreira*, Andrew Zisserman. The Visual Centrifuge: Model-Free Layered Video Representations.. In *Proc. CVPR 2019.* (oral) *equal contribution

Dmitry Zhukov, **Jean-Baptiste Alayrac**, David Fouhey, Gokberk Cinbis, Ivan Laptev and Josef Sivic. Cross-task weakly supervised learning from instructional videos. In *Proc. CVPR 2019.*

Guilhem Chéron*, **Jean-Baptiste Alayrac***, Ivan Laptev and Cordelia Schmid. A flexible model for training action localization with varying levels of supervision. In *Proc. NeurIPS 2019.* *equal contribution

Rémi Leblond*, **Jean-Baptiste Alayrac***, Anton Osokin and Simon Lacoste-Julien. SeaRnn: Training RNNs with Global-Local Losses. In *Proc. ICLR 2018.* *equal contribution

Jean-Baptiste Alayrac, Piotr Bojanowski, Nishant Agrawal, Ivan Laptev, Josef Sivic and Simon Lacoste-Julien. Learning from narrated instruction videos. In *TPAMI 2017.*

Jean-Baptiste Alayrac, Ivan Laptev, Josef Sivic and Simon Lacoste-Julien. Joint Discovery of Object States and Manipulation Actions. In *Proc. ICCV 2017.*

Antoine Miech, **Jean-Baptiste Alayrac**, Piotr Bojanowski, Ivan Laptev and Josef Sivic. Learning from Video and Text via Large-Scale Discriminative Clustering. In *Proc. ICCV 2017.*

Jean-Baptiste Alayrac, Piotr Bojanowski, Nishant Agrawal, Ivan Laptev, Josef Sivic and Simon Lacoste-Julien. Unsupervised learning from narrated instruction videos. In *Proc. CVPR 2016.* (oral)

Anton Osokin*, **Jean-Baptiste Alayrac***, Isabella Lukasewitz, Puneet K. Dokania and Simon Lacoste-Julien. Minding the Gaps for Block Frank-Wolfe Optimization of Structured SVMs. In *Proc. ICML 2016.* *equal contribution

Benjamin Grena, **Jean-Baptiste Alayrac**, Etgar Levy, Alexander M Stolyarov, John D Joannopoulos, Yoel Fink. Thermally-drawn fibers with spatially-selective porous domains. In *Nature Communications. 2017*

Supervision, Teaching and Scientific mediation

2017-Present **École Normale Supérieure**, *Paris, France*, Co-supervisor.
Co-supervising Dmitry Zhukov for MSc and PhD with Josef Sivic and Ivan Laptev.

2017 **Inria**, *Paris, France*, Main developer of the "Apprenti Illustrateur".
Designed the "Apprenti Illustrateur", a sketch recognizer aimed at explaining machine learning to kids, and used for several exhibitions including the "Palais de la Découverte", the "Salon Culture et Jeux Mathématique", and at EPFL.

2015-2017 **École Normale Supérieure**, *Paris, France*, Teaching assistant.
"Introduction to statistical machine learning".
Taught with Simon Lacoste-Julien, Jean-Philippe Vert and Francis Bach.

2014-2016 **Université Pierre et Marie Curie**, *Paris, France*, Math teaching assistant.
"Analyse et algèbre pour les sciences", "Calcul matriciel" and "Algèbre bilinéaire et géométrie".

Programming languages

Matlab, Python, Tensorflow.

Miscellaneous

Languages French (native), English (fluent), Spanish (conversationnal).

Sports Rock climbing, Hiking