

# Xuedong Shang

## Curriculum Vitae

### Education

- 2017–2021 **PhD in Computer Science**, *Inria*, Lille, France.  
machine learning, multi-armed bandits, zeroth-order optimization, reinforcement learning
- 2015–2017 **Master of Computer Science**, *École normale supérieure de Cachan*, Rennes, France.
- 2014–2015 **Bachelor of Computer Science**, *École normale supérieure de Cachan*, Rennes, France.
- 2012–2013 **Bachelor of Mathematics**, *Université Pierre et Marie Curie (Paris VI)*, Paris, France.
- 2008–2011 **Mathematical Preparatory Class**, *Lycée Henri Poincaré*, Nancy, France.  
post-secondary preparatory classes preparing for highly selective entrance examinations to the French Grandes Ecoles, including intense courses on mathematics, physics, chemistry, computer science and philosophy

### Training

- July 2019 **Reinforcement Learning Summer School**, Lille, France.  
reinforcement learning, bandits
- Jan 2019 **Machine Learning Summer School**, Stellenbosch, South Africa.  
machine learning

### Publications

#### Conference Papers

- ICML 2020 **Gamification of pure exploration for linear bandits**, in Proceedings of the 37th International Conference on Machine Learning.  
Rémy Degenne, Pierre Ménard, **Xuedong Shang** and Michal Valko
- AIStats 2020 **Fixed-confidence guarantee for Bayesian best-arm identification**, in Proceedings of the 23rd International Conference on Artificial Intelligence and Statistics, Palermo, Italy.  
**Xuedong Shang**, Rianne de Heide, Emilie Kaufmann, Pierre Ménard and Michal Valko
- ALT 2019 **General parallel optimization without metric**, in Proceedings of the 30th International Conference on Algorithmic Theory, Chicago, USA.  
**Xuedong Shang**, Emilie Kaufmann and Michal Valko

#### Journal Papers

#### Workshop Papers

25, rue de Tournai – 59800 Lille

📞 +33 651882289 • 📞 00892165648623 • ✉️ xuedong.shang@inria.fr  
🌐 xuedong.github.io

ICML 2019 - **A simple dynamic bandit algorithm for hyper-parameter tuning**, in 6th ICML AutoML Workshop on Automated Machine Learning, Long Beach, USA.  
**Xuedong Shang**, Emilie Kaufmann and Michal Valko

EWRL 2018 **Adaptive black-box optimization got easier: HCT only needs local smoothness**, in 14th European Workshop on Reinforcement Learning, Lille, France.  
**Xuedong Shang**, Emilie Kaufmann and Michal Valko

### Preprints

**Stochastic bandits with vector losses: Minimizing  $\ell^\infty$ -norm of relative losses.**  
Jian Qian, **Xuedong Shang** and Han Shao

**Simple (dynamic) algorithms for hyper-parameter optimization.**  
**Xuedong Shang**, Emilie Kaufmann, Michal Valko

**Time series clustering.**  
Dominique Barbe, Alexandre Debant, **Xuedong Shang**

---

## Experience

### Vocational

October **PhD Candidate**, *Sequel, Inria Lille-Nord Europe*, Lille, France.  
2017–March Adaptive Methods for Optimization in Stochastic Environments, under the supervision of  
2021 Emilie Kaufmann & Michal Valko  
March **Research Engineer**, *Noah Ark's Lab*, Paris, France.  
2020–August Automated Machine Learning, working with Balázs Kégel and Igor Colin  
2020  
February **Research Internship**, *Sequel, Inria Lille-Nord Europe*, Lille, France.  
2017–July Hierarchical Bandits for "Black Box" Optimisation and The Monte-Carlo Tree Search, under  
2017 the supervision of Emilie Kaufmann & Michal Valko  
May **Research Internship**, *Yamamoto-Cuturi Lab., Graduate School of Informatics*,  
2016–July *Kyoto University*, Kyoto, Japan.  
2016 Optimal Transport Geometry for Machine Learning Problems, under the supervision of  
Marco Cuturi  
May **Research Internship**, *Magnet, Inria Lille-Nord Europe*, Lille, France.  
2015–July Recommender System, under the supervision of Marc Tommasi  
2015  
June **Research Internship**, *CNRS Vérimag*, Grenoble, France.  
2012–July On the Generation of Positivstellensatz Witnesses in Degenerate Cases, under the  
2012 supervision of David Monniaux

### Others

May **Secretary-General**, *Union des étudiants et chercheurs chinois à Lille (UCECL)*,  
2019–May Lille, France.  
2020  
June **Member**, *Publicity Department, Union des étudiants et chercheurs chinois à Lille*  
2018–May *(UCECL)*, Lille, France.  
2019

25, rue de Tournai – 59800 Lille

☎ +33 651882289 • 📞 00892165648623 • ✉ xuedong.shang@inria.fr  
🌐 xuedong.github.io

July **Summer Internship**, *Corporate Banking Department, Industrial and Commercial*  
2013–August *Bank of China*, Shanghai, China.  
2013

August 2012 **Summer Internship**, *International Business Department, Agricultural Bank of*  
*China*, Shanghai, China.

## Computer skills

Programming languages	C, C++, C#, Objective-C, Swift, Java, Python, Julia, Ruby, R, OCaml, Kotlin, Rust, Golang, Scala, Haskell, Elixir, Clojure, Bash	Web	HTML5/CSS3, Bootstrap, jQuery, JSON/Ajax, JavaScript, Sass, React, D3, Node.js, MongoDB
Operating systems	Linux, Windows, Mac OS	Numerical	Maple, Matlab/Octave
Machine learning	scikit-learn, PyTorch, Theano	Other	L <sup>A</sup> T <sub>E</sub> X, Git, SVN, Vim, Emacs, Jupyter Notebook

## Services

**NIPS 2017**, External Reviewer.

**NeurIPS 2019, 2020**, Reviewer.

**ICML 2018, 2019**, External Reviewer.

**AISTats 2019**, External Reviewer.

**ICLR 2021, ICLR 2019 Workshop LLD**, Reviewer.

**RLSS 2019**, Organization Committee, Teaching Assistant.

## Languages

English	Full Professional Proficiency	TOEIC 925
French	Native/Bilingual Proficiency	
Chinese Mandarin	Mother Tongue	
Chinese Shanghainese	Mother Tongue	
Japanese	Limited Working Proficiency	
Spanish	Limited Working Proficiency	

## Interests

Academic	Maths, Finance, Neuroscience, e-Education
Sports	Football, Basketball, Ski, Cycling, Bouldering
Arts	Piano

## Extra

25, rue de Tournai – 59800 Lille

☎ +33 651882289 • ☎ 00892165648623 • ✉ xuedong.shang@inria.fr  
🌐 xuedong.github.io

Eduinfinity	Team leader on computer science courses	<i>A translation group providing chinese subtitles for courses on Coursera.org, edX.org, etc</i>
Wikipedia	Wikipedian in English, French, Chinese and Japanese	
Unef	Foreign student candidate at ENS	<i>National union of students of France</i>

25, rue de Tournai – 59800 Lille

📞 +33 651882289 • 📞 00892165648623 • ✉️ [xuedong.shang@inria.fr](mailto:xuedong.shang@inria.fr)  
🌐 [xuedong.github.io](https://xuedong.github.io)