Tom Huix

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Education 🎓

École Polytechnique (CMAP)   Palaiseau, France
PhD student supervised by Eric Moulines, Alain Durmus and Anna Korba. Working   2021 – 2024
on Bandit problems and Bayesian Neural Networks.

ENS Paris Saclay / MVA master   Gif-sur-Yvette, France
Master of science specialized in computer vision, applied mathematics and machine   2020 – 2021
learning.

CentraleSupélec, Engineering School   Gif-sur-Yvette, France
French Engineering School, with a specialization in Machine Learning   2017 – 2021

Michel Montaigne, CPGE MPSI/PSI   Bordeaux, France
Preparatory classe for the French "Grandes Ecoles"   2015 – 2017

Research paper 📑

- **Tight Regret and Complexity Bounds for Thompson Sampling via Langevin.** (AISTATS) 2023.
- **Law of Large Numbers for Bayesian two-layer Neural Network trained with VI.** (COLT) 2023.
- **VITS : Variational Inference Thomson Sampling for contextual bandits.** (ICML) 2024.
- **Theoretical Guarantees for VI with Fixed-Variance Mixture of Gaussians.** (ICML) 2024.
- **VI for Overparametrized BNN : a Theoretical and Empirical Study.** Submitted 2024.
- **Central Limit Theorem for Bayesian Neural Networks trained with VI.** Submitted 2024.

Work experience 🏢

Research intern at Huawei (6 months internship)   Paris, France
Developed a novel training method for Binary Neural Networks (Neural Networks with   Apr. – Sep. (2021)
binary weights) to significantly reduce memory usage of these models.

Data Scientist at Upskills (6 months internship)   Singapore
Built a financial email classifier using BERT algorithm for one of Asia's largest banks.
Designed an unsupervised email labeling system with Sentence-BERT and implemented   Jan. – July (2020)
clustering techniques for financial email analysis.

Data Scientist at BeSport (6 months internship)   Paris, France
Developed a text classifier for sports articles using an LSTM network, tailored for the   July. – Dec. (2019)
social platform BeSport.

Skills ⚙️

- **Programming language:** Python, C++, Java, Caml
- **Python libraries:** Jax, Pytorch, Wandb, Pandas, SQL, Latex, Git
- **Languages:** French (Native), English (Fluent)
- **Interests:** Ecology, climbing, hiking, ...