

**Tamim El Ahmad**  
PhD Student · Machine Learning  
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## Education

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| <b>TÉLÉCOM PARIS</b><br><i>PhD in Machine Learning (Sup. F. d'Alché-Buc, P. Laforgue)</i> <ul style="list-style-type: none"><li>• TITLE: Learning Deep Kernel Networks: Application to Efficient and Robust Structured Prediction</li><li>• RESEARCH TOPICS: Kernel Methods, Random Projections, Structured Prediction, Neural Networks</li></ul> | Jan. 2021 – Present<br><i>Paris, France</i>             |
| <b>ÉCOLE NORMALE SUPÉRIEURE PARIS-SACLAY</b><br><i>Master's degree MVA - Machine Learning and Computer Vision</i>   | Sep. 2019 – Sep. 2020<br><i>Paris, France</i>           |
| <b>ÉCOLE DES MINES DE SAINT-ÉTIENNE</b><br><i>Engineering Degree - Computer and Data Science</i>  | Sep. 2016 – Sep. 2020<br><i>Saint-Étienne, France</i>   |
| <b>UNIVERSITÉ PARIS-DIDEROT</b><br><i>Academic gap year in Master 1 - Applied Mathematics</i>   | Sep. 2018 – Sep. 2019<br><i>Paris, France</i>           |
| <b>UNIVERSIDAD DE BUENOS AIRES</b><br><i>Exchange Program - Computer and Data Science</i>   | Aug. 2017 – Dec. 2017<br><i>Buenos Aires, Argentina</i> |
| <b>UNIVERSITÉ JEAN MONNET</b><br><i>Bachelor's degree - Mathematics</i>   | Sep. 2016 – Sep. 2017<br><i>Saint-Étienne, France</i>   |

## Experience

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| <b>TÉLÉCOM PARIS</b><br><i>Research Engineer in a joint project with Valéo</i> <ul style="list-style-type: none"><li>• Research and development for unsupervised anomaly detection (One-Class SVM, Isolation Forest, Data Depth)</li><li>• Development of an unsupervised anomaly detection library (Python)</li></ul> | Oct. 2020 – Jan. 2020<br><i>Paris, France</i> |
| <b>TÉLÉCOM PARIS</b><br><i>Research Intern</i> <ul style="list-style-type: none"><li>• Research and development for structured prediction: hybrid architecture based on kernel methods and neural networks (PyTorch)</li></ul>   | May 2020 – Sep. 2020<br><i>Paris, France</i>  |
| <b>MÉDICIS</b><br><i>Computer Science Intern</i> <ul style="list-style-type: none"><li>• Development of a NoSQL data entry server (MongoDB)</li></ul>  | Jun. 2019 – Aug. 2019<br><i>Paris, France</i> |
| <b>SANOFI</b><br><i>Computer Science Intern</i> <ul style="list-style-type: none"><li>• Research and development of a deep learning model for automatic recognition of IC-50 curves (Keras, Knnime)</li></ul>  | Jun. 2018 – Aug. 2018<br><i>Paris, France</i> |

## *Academic Duties*

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### **Teaching Assistant**

Jan. 2021 – Present

*Télécom Paris*

*Paris, France*

- Tutorials: Statistics, Convex Optimisation
- Practical Sessions: Statistics, Convex Optimisation, Kernel Methods, Introduction to Machine Learning, Structured Prediction

### **Reviewer**

Jun. 2022 – Present

*AISTATS, JMLR, TPAMI*

### **Talks**

Sep. 2022 – Present

*ELISE Theory Workshop (Sophia Antipolis 2022), CAp (Strasbourg 2023)*

## *Publications*

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**Deep Sketched Output Kernel Regression for Structured Prediction** (Preprint).

T. El Ahmad\*, J. Yang\*, P. Laforgue, F. d'Alché-Buc.

**Sketch In, Sketch Out: Accelerating both Learning and Inference for Structured Prediction with Kernels** (AISTATS 2024).

T. El Ahmad, L. Brogat-Motte, P. Laforgue, F. d'Alché-Buc.

**Fast Kernel Methods for Generic Lipschitz Losses via  $p$ -Sparsified Sketches** (TMLR 2023).

T. El Ahmad, P. Laforgue, F. d'Alché-Buc.

## *Other Interests*

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**Musical education and Guitar:** 10 years, National school of music Marcel Dadi in Créteil

**Sport:** Fencing (8 years of practice), Football, Swimming