



# Achille Salaün

Postdoctoral Research Assistant



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## About me

I am a postdoctoral research assistant at the University of Oxford, developing interpretable machine learning models for clinical decision support in kidney transplant offering. More generally, I enjoy working on applied machine learning problems, collaborating with experts, and building interpretable tools for them.

## Skills

Machine learning

Python

Matlab

LaTeX

(\*)[The skill scale is from 0 (Fundamental Awareness) to 5 (Expert).]

## Languages

French

English

Chinese

(\*)[The language scale is from 0 (Fundamental Awareness) to 5 (Expert).]

## Research interests

Machine learning (ML) • Interpretability • Survival analysis

## Education

2017-2021 PhD in Computational Mathematics Institut Polytechnique de Paris  
*Title: Alarm prediction in networks via space-time pattern matching and machine learning*

*Supervision: François Desbouvries, Anne Bouillard, Marc-Olivier Buob, Yohan Petetin*

*Funding: Industrial PhD (CIFRE) between Télécom SudParis (SAMOVAR) and Nokia Bell Labs*

2014-2017 Graduate Engineer (*Diplôme d'ingénieur*) - Master's degree  
Télécom Paris

2015-2017 Télécom Paris' Master specialisation in Data Science and Engineering  
EURECOM

## Selected publications

- 2023 Interpretable Machine Learning in Kidney Offering: Multiple Outcome Prediction for Accepted Offers. Preprint  
*Salaün A., Knight S., Wingfield L. R., Zhu T.*
- 2022 Clinical decision support systems used in transplantation: are they tools for success or an unnecessary gadget? Transplantation  
*Wingfield L. R., Salaün A., Khan A., Webb H., Zhu T., Knight S.*
- 2020 Demo: end-to-end root cause analysis of a mobile network Infocom  
*Achille Salaün, Anne Bouillard, Marc-Olivier Buob*
- 2019 Comparing the modeling powers of RNN and HMM ICMLA  
*Achille Salaün, Yohan Petetin, François Desbouvries*
- 2019 Space-time pattern extraction in alarm logs for network diagnosis MLN  
*Achille Salaün, Anne Bouillard, Marc-Olivier Buob*
- 2018 Log analysis via space-time pattern matching CNSM  
*Anne Bouillard, Marc-Olivier Buob, Maxime Raynal, Achille Salaün*

## Projects

- 2022-Now xamelot: Python 3 library for explainable ML for organ transplant.
- 2017-2021 veggie: Python 3 implementation of DIG-DAG related algorithms.
- 2020 pybgl: contributions to a Python 3 library providing graph tools.

## Experience

- 2022-Now Postdoctoral Research Assistant University of Oxford  
*Within the CHI Lab (IBME, Department of Engineering, University of Oxford), I develop interpretable solutions to predict post-transplant graft and patient survival, as well as patient outcomes if an organ offer is declined.*
- 2017-2021 PhD in Computational Mathematics Télécom SudParis, Nokia Bell Labs  
*Apart from the theoretical work, my thesis shows a strong applied component. Indeed, Anne, Marc-Olivier and I implemented our DIG-DAG related algorithms into a Python 3 module, which has been at the core of a collaboration with Nokia's business units.*
- 2018-2020 Teaching Télécom SudParis  
*For two consecutive years, I supervised lab sessions for a course on Scientific Calculus (Master 1) and another one on Image Segmentation with Hidden Markov Models (Master 2).*