kanvaly.fadiga@polytechnique.edu fkanvaly.github.io | +33 (0)6 18 41 17 38

## **EDUCATION**

## TÉLÉCOM PARISTECH

ARTIFICIAL INTELLIGENCE
MASTER OF SCIENCE
2020 - 2022 | Paris, France
Graduate engineering schools

## **ECOLE POLYTECHNIQUE**

IMAGE, VISION & LEARNING MASTER OF SCIENCE 2017-2021 | Paris, France

Graduate engineering schools. France's top ranking university for high-level scientific training.

# **COURSEWORK**

## GRADUATE

## Télécom Paris

Logics and Symbolic AI
Natural Language Processing
Advanced Statistics
Convex Optimization
Metaheuristic (Hard Optimization)
Navigation & Control in Robotics

## École polytechnique

Applied Mathematics & Statistics Advanced Machine Learning Advanced Computer Vision Advanced Reinforcement Learning Computational geometry Computer Graphics Design and Analysis of Algorithms

## **SKILLS**

## **PROGRAMMING**

Compiled Language:

C++\*\*\*, Java\*\*

#### Scriptable Language:

Python\*\*\*, R\*, Javascript\*\*

\*\*\*: fluent, \*\*: pratice, \*: notion

#### **INTERNET OF THINGS**

Arduino • Raspberry Pi • Node.js • Laser Cutting • 3D Printing

### AR/VR/3D

Unity • ARCore • Blender

## **LANGUAGES**

French: Mother Tongue

English: Fluent

## **EXPERIENCE**

## YOKAI | FREELANCE - DATA SCIENTIST

July 2020 | Paris, France

Implementation of a standalone Python module for face identity analysis.

## **BENTLEY SYSTEMS** | RESEARCH INTERN - COMPUTER VISION

April 2020 - August 2020 | Paris, France

Working on leveraging Augmented Reality capabilities of mobile devices to ease the acquisition and 3D reconstruction of complex environments

## **SMARTMEUP** | INTERN - MACHINE LEARNING

June 2019 - Aug. 2019 | Grenoble, France

Working on translation of a RGB face image to a physically realistic IR face image using Generative Adversarial Networks (GAN).

## X-ROBOT | VICE PRESIDENT - ROBOTIC ASSOCIATION

Dec 2018 - June 2019 | Ecole polytechnique

Organizing events and training courses in Robotics.

## **RESEARCH & PROJECTS**

### CAUSALITY DETECTION | Causal Inference

Oct. 2020 - Now | Telecom Paristech

The goal of this project is to detect the cause of anomaly in Smart Home. To do this, the system will develop a causal model of its own functioning based on the correlations it has been able to observe. The idea is to co-evolve the causal model and the observation of problematic phenomena. The study will use the Bayes relation and Minimum Complexity Measures (MCM).

#### **OPTIMAL SENSOR PLACEMENT** | OPTIMIZATION

Oct. 2020 - Dec 2020 | Télécom Paristech

Exploration of different stochastic optimization methods on the problem of sensor placement.

## **ALPHA QUORIDOR** | REINFORCEMENT LEARNING

Jan 2020 - May 2020 | Ecole polytechnique

we build an agent that master Quoridor Board Game. Quoridor is not so famous game and there is not a lot of research about it. It has a state-space complexity similar to Chess with a higher game-tree complexity.

## LINK PREDICTION | Machine Learning, Graph

Oct. 2019 - Dec 2019 | École polytechnique

My task was to predict links between pages in a subgraph of the French webgraph. From the original subgraph, edges have been deleted at random. Given a set of candidate edges, our job was to predict which ones appeared in the original subgraph.

# **AWARDS**

2020 3<sup>rd</sup>/12 DGA Challenge | Distributed Intelligence - Drone Swarm 2017-2020 Côte d'Ivoire Government Excellence Scholarship

# LICENCES & CERTIFICATIONS

Coursera Neural Networks and Deep Learning

Coursera Improving Deep Neural Networks: Tuning, Regularization and Optimization