Alexandre JOUANDIN

Graduate Computer Science student looking
for challenging opportunities in Deep Learning.

PERSONAL INFO

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WORK EXPERIENCE

JUNE — DEC. 2018 | **Data Scientist** *(intern)* at Karos — Paris, France
Karos makes carpooling effortless: it matches together commuters with similar habits, turning the network of car drivers into an extension of the public transport system, and improving the well-being of the users.
I **shrank the number of irrelevant matches by 30%** by building, training and deploying a Machine Learning model that predicted likeliness of a match between two users to be accepted.
I **improved the throughput of the fraud detection** system by a **factor of 50** per month, by designing, training and deploying a semi-supervised clustering model.

SUMMER 2017 | **Software Engineer** *(intern)* at Blòkur — London, UK
Cut the processing time of the entire Universal Music records catalog **from half-an-hour to 8 minutes** by redesigning and reimplementing a single-thread file processing algorithm into a highly concurrent, fault-tolerant system that could run across multiple processors across multiple AWS servers. | Recommendation on LinkedIn

SUMMER 2016 | **Software Engineer** *(intern)* at RiteTag — Remote
Led a team of other interns to take on designing and creating the **foundation framework** for the new direction the company was about to take. | Recommendation on LinkedIn

EDUCATION

2017-2019 | **Georgia Tech** Master's Sc. in COMPUTER SCIENCE — Atlanta, GA, USA
Major: *Machine Learning*
Developing my Computer Vision and Autonomous Robotics skills while heavily specializing in Machine Learning and Artificial Intelligence. Through this specialization I have experienced a lot with many Machine Learning technologies and gained a lot of insight on tuning supervised, unsupervised and reinforcement learning algorithms.

2015-2017 | **ENSEEIHT** Master's Sc. in COMPUTER SCIENCE — Toulouse, France
Major: *High Performance Computing & Big Data*
Deepened my knowledge of programming and delved into Applied Mathematics.

2012-2015 | **Classes préparatoires** Undergraduate-level Mathematics & Physics studies — Paris & Lyon, France
2012 | **Lycée Français de Moscou** Science Baccalauréat with Honors — Moscow, Russia

SKILLS

INFORMATICS: Machine Learning, Robotics, Adv. Software Engineering, Cybersecurity, Computer Architecture
MATHEMATICS: Linear Algebra, Bayesian Statistics, Stochastic Optimization, Large Scale Linear Optimization

PROJECT HIGHLIGHTS

Reconnaissance Chess Agent — AlphaZero in the context of imperfect information game
Built an agent able to play Reconnaissance Chess — a variant of Chess where the players do not see each other pieces and are only allowed to "sense" one 3×3 square on each turn. My implementation is based on DeepMind's AlphaZero and uses a Monte Carlo Tree Search backed by a Tensorflow Deep Neural Network. The main difficulty was adapting the idea to our variant where information is imperfect.

Shrimp in Petri Dishes — Using Computer Vision to assess water quality
Built an algorithm to visually track freshwater shrimp in Petri dishes and return indicators about their movement that reasearch scientists would then use to quantify the water quality (roughly, the more polluted the water, the less the shrimps will move).

Turtlebot — Simultaneous-Localization-and-Mapping-aided task planning
Built SLAM-aided task planning software for ROS. The software was written in a mix of C++ and Python and ran on a Turtlebot. It enabled the robot to start from its charging dock, intelligently scout around a building to build a WiFi signal map, and return to its base.