ALICIA FORTES MACHADO

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EDUCATION

École Polytechnique   *Sep 2020 – Sep 2021*
M.Sc. in Data Science.   *Palaiseau, France*

École Polytechnique   *Jan 2019 – Sep 2020*
B.S. in Computer Science & Applied Mathematics. Selected for Eiffel scholarship. *Palaiseau, France*
Overall GPA: 3.6

Technological Institute of Aeronautics – ITA   *Jan 2017 – Dec 2018*
B.S. in Computer Science & Engineering.   *São José dos Campos, Brazil*
Overall GPA: 3.6

WORK EXPERIENCE

Google   Jun 2020 – Sep 2020
Software Engineering Intern   *Paris, France*

· Implemented a Kubernetes operator in **Go** using Operator SDK, which watches for all the Custom Resources of a specific Custom Resource Definition and updates Kubernetes. It's responsible for assuring that all the set configurations for a specific Challenge in the kCTF (CTF infrastructure) are acceptable and are followed.
· Allowed to have essential features in the infrastructure as version control and RBAC.

RESEARCH

École Polytechnique– Graduate research   *Oct 2020 – Mar 2021*
Implementing and evaluating a reinforcement learning agent for inference across the probability tree incurred by a classifier chain. Developing the project in Python with scikit-learn, Pytorch and OpenAI Gym libraries.

National Institute of Pure and Applied Mathematics – Summer course   *Jan 2018 – Feb 2018*
Researched Real Analysis in an undergraduate level. Selected for scholarship.

PROJECTS

ArtGAN

· Implemented a generative neural network that produces art based on the ArtGAN paper.
· Developed using Pytorch and trained for approximately 168 hours in a cloud platform.
  github.com/aliciafmachado/artgan-implementation

Analysis of Traffic Accident Dataset

· Analysed a dataset of traffic accident in France using Python to help guide public policy.
  github.com/aliciafmachado/traffic-accident-injury-analysis

Minecraft clone

· Developed a Minecraft-like game with procedural world generation using OpenGL on C++.
  github.com/aliciafmachado/minecraft-clone

Project in drones coordination

· Created a tool with Rviz to visualize the drones and their trajectories and implemented an algorithm of coordination based in a scientific article about multiple agents coordination.
· Developed this project in Python using ROS and the libraries from CrazyFlie – quadcopter used in the project.
  github.com/aliciafmachado/drones-coordination

SKILLS

Computer Languages	C++, Python, Java, C, Go, R, SQL.
Machine learning libraries	Pytorch, Tensorflow and scikit-learn.
Spoken languages	Portuguese (native), English (fluent), French (fluent), German (intermediate).
Other tools	Kubernetes, Docker and Gcloud.