

ALICIA FORTES MACHADO

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EDUCATION

ENS Paris-Saclay , <i>Gif-sur-Yvette, France</i> M.Sc. in Mathematics, Vision and Learning (MVA).	<i>Sep 2021 – Sep 2022</i>
École Polytechnique , <i>Palaiseau, France</i> M.Sc. in Data Science. B.S. in Computer Science & Applied Mathematics. Selected for Eiffel scholarship.	<i>Jan 2019 – Sep 2021</i> Overall GPA: 3.7
Instituto Tecnológico de Aeronáutica <i>São José dos Campos, Brazil</i> B.S. in Computer Engineering.	<i>Jan 2017 – Dec 2018</i> Overall GPA: 3.6

WORK EXPERIENCE

Google <i>Software Engineer – Youtube</i>	<i>Sep 2022 – now</i> <i>Paris, France</i>
<ul style="list-style-type: none">· Fine-tuned and launched an LLM for classification which allowed to improve safety on YouTube.· Productionized ML models for large-scale serving.	
Hugging Face <i>ML Research Engineer Intern – Simulation Environments</i>	<i>Apr 2022 – Sep 2022</i> <i>Paris, France</i>
<ul style="list-style-type: none">· Evaluated Deep RL libraries, in order to identify aspects such as flexibility, efficiency and reliability.· Implemented a procedurally generated environment for RL with random world, object, and goal generation. Experimented with unsupervised RL algorithms for exploration in this environment.	
Google <i>Software Engineering Intern – Research in ML for compilers</i>	<i>Mar 2021 – Jul 2021</i> <i>Paris, France</i>
<ul style="list-style-type: none">· Implemented a ML-based performance model for a new IR called Sair using Jax and TFDS. Built a complete infrastructure to process and represent Sair data; gather accurate performance measurements; and train and evaluate the model. Experimented with different parameters, and found suitable metrics and loss functions.· Achieved results as competitive as other works in ML for compilers - 7.5% of MAPE in performance prediction.	
Google <i>Software Engineering Intern – Capture the Flag infrastructure (kCTF)</i>	<i>Jun 2020 – Sep 2020</i> <i>Paris, France</i>
<ul style="list-style-type: none">· Implemented a K8s operator in Go using Operator SDK, which watches for all Custom Resources (CRs) associated with a specific CR Definition and updates K8s. It checks and ensures the settings set for a Challenge in kCTF.· Allowed to have essential features in the infrastructure as version control and RBAC.	

RESEARCH

École Polytechnique – Graduate research Implemented and evaluated a reinforcement learning agent for inference across probability trees incurred by classifier chains. Developed the project in Python with scikit-learn, Pytorch and OpenAI Gym libraries.	<i>Oct 2020 – Mar 2021</i>
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PROJECTS

Unsupervised video segmentation
<ul style="list-style-type: none">· Unified STCN for video segmentation with Mask R-CNN for object segmentation to build a completely unsupervised video segmentation approach. Code in github.com/aliciafmachado/stcn-video-segmentation
FEERIC prediction
<ul style="list-style-type: none">· Identified main aspects that maintain women answering the FEERIC questionnaire on breast cancer. <i>Private repository due to non-disclosure agreement</i>

SKILLS

Computer Languages	Python, C++, Java, Go, R, SQL, C.
Machine learning libraries	Jax, Pytorch, Tensorflow, and scikit-learn.
Spoken languages	Portuguese (native), English (fluent), French (fluent), German (intermediate).
Other tools	Apache Beam, Kubernetes, Cython, and Cloud (GCP & Azure).