Gaétan **Lepage**

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Final year PhD student in deep learning for social robotics. Nix/NixOS contributor. Available starting from August 2025

Education

UGA Grenoble Alpes University

Grenoble, France

2020-2025

• Title: Deep probabilistic reinforcement learning for audio-visual human-robot interaction

• Supervisors: Dr. Xavier Alameda-Pineda, Pr. Laurent Girin and, Dr. Chris Reinke

ENGINEERING SCHOOL IN COMPUTER SCIENCE AND APPLIED MATHEMATICS

• Defense expected to happen in July 2025

UGA Grenoble Alpes University

Grenoble, France

2019 - 2020

MASTER OF SCIENCE IN INDUSTRIAL AND APPLIED MATHEMATICS

· Data Science track: machine learning, optimization, optimal transport, probabilities, computer vision

• Grade: 16.32/20 | Rank: 2/50

Ensimag, Grenoble Institute of Technology

Grenoble, France

2017 - 2020

- MMIS track (Mathematics Modeling, Image & Simulation)
- · Courses:
 - Applied Mathematics: functional analysis, probabilities, optimization, statistics, dynamical systems
 - Computer Science: software engineering, language theory, algorithms and data structure

Internship and work experience

Ensimag, Grenoble Institute of Technology

Grenoble, France

2020 - 2022

· Teaching Assistant at Ensimag for first-year engineering students

4 courses (120h total):

TEACHING ASSISTANT

- Statistical principles and methods
- Applied probabilities
- ► Software development project in C (implementing a GUI library in C)
- ► Basics of imperative programming (in Python)

MASTER'S THESIS, RESEARCH INTERNSHIP

Massor Peas University of Applied Sciences and Arts of Western Switzerland

Sierre, Valais, Switzerland

2020 - 2020

· Five-month research internship

• Thesis: Segmentation of compound figures in medical publications using deep learning

Ensimag, IT department

BUGBUSTER

Grenoble, France

2018 - 2020

• Paid student role providing IT support to Ensimag students

· Installation and maintenance of Linux environments (dual-boots, virtual machines, troubleshooting, etc.)

Open source projects_

nixpkgs

SOFTWARE REPOSITORY FOR THE NIX(OS) ECOSYSTEM

- One of the largest GitHub repos (~750k commits, ~2 million Nix LoC) and package repositories (100k packages)
- I maintain 200 packages, including PyTorch, protobuf, Jax, and Dask
- I interact with multiple build toolchains and languages: C/C++ (Cmake, make and meson), Rust (cargo), Python (setuptools, hatchling),
- I have authored more than 1,700 PRs and reviewed more than 1,200
- GitHub repository: https://github.com/NixOS/nixpkgs

Nix

GAÉTAN LEPAGE **CURRICULUM VITAE**

RemI (Remote Inria)

CLI TOOL FOR INTERACTING WITH A COMPUTE CLUSTER

- · Allows scientists from the RobotLearn team to easily interact with Inria's computing infrastructures:
 - Seamlessly sync project files to a remote storage partition
 - Run jobs on remote compute nodes or workstations (using the OAR scheduler)
 - ► Build and interact with Singularity/Apptainer containers
- GitLab repository: https://gitlab.inria.fr/remote-inria/remi
- Documentation: https://remote-inria.gitlabpages.inria.fr

Python

Cluster monitor

WEB-BASED LIVE VISUALIZATION FOR THE CLUSTER INFRASTRUCTURE

- Provides an effective and concise overview of a GPU cluster's occupancy.
- GitLab repository: https://gitlab.inria.fr/robotlearn/cluster-monitor

Python

Nixvim

COLLECTION OF NIX MODULES AND TOOLING FOR CONFIGURING NEOVIM USING NIX

- 2,000 stars on GitHub, 100k lines of code (tests included)
- I have been a core maintainer for the past 3 years
- GitHub repository: https://github.com/nix-community/nixvim

Nix

Skills_____

Languages English, French

Programming Python, Nix, Bash, C (basics), Java (basics)

languages

- **Tech Stack** Deep Learning stack (PyTorch, NumPy)
 - Containerization (Apptainer/Singularity, Docker)
 - Nix/NixOS
 - Software building and packaging (make, meson, CMake, cargo)
 - Linux system administration
 - Git, UNIX tooling