

Erwin POUSSI

erwinpi@stanford.edu | +1 650 250 7491 | +33 (0)7 49 62 90 59 | [Website](#) | [GitHub](#) | [LinkedIn](#)

EDUCATION

Stanford University, Palo Alto, CA

- MS in Aeronautics & Astronautics GPA: **4.1/4.0**
- Courses: Robot Autonomy, Robotics, Decision Making under Uncertainty, Optimal & Learning-Based Control, Deep RL

Ecole Polytechnique, Palaiseau, France

- MEng in Mechanical Engineering, concentration in Autonomy, minor in Entrepreneurship GPA: **3.96/4.0**

EXPERIENCE

Graduate Research Assistant, Stanford Multi-Robot Systems Lab (Profs. Schwager & Pavone) Jan. 2025 – Present

- designed and deployed whole-body loco-manipulation controllers for G1 and Spot robots using semantic scene graph reasoning ([GAIT-Manip](#))
- built a graph-memory architecture for VLA robot navigation with online scene graph construction and interrupt-driven re-planning ([GAIT](#))
- trained VLA policies for drone navigation via behavioral cloning and DAgger; **90% success** (from 52%) with RRT*, MPC expert demos, and CLIPSeg on 3D Gaussian Splats ([project](#))

ML Researcher, Stanford School of Medicine, Qiu Lab (Prof. Qiu)

Oct. 2025 – Present

- developed [Pantheon-CLI](#), a multi-agent LLM framework for autonomous genomic discovery; fine-tuned Qwen3 via SFT + RLOO; actor-critic RL for gene panel selection in scRNA-seq
- trained foundational 3D convolutional models for embryogenesis; co-built the [Virtual Embryo Challenge](#) platform ([project](#))

AI Instructor, Inspirit AI

Jul. 2026 – Aug. 2026

- taught ML and neural networks to scholars; designed hands-on sessions and guided real-world AI projects

Research Intern, Stevens Institute of Technology (Prof. Rabinovitch)

Apr. 2025 – Aug. 2025

- multi-fidelity ML framework (random forests + genetic algorithms) for parachute permeability under rarefied conditions; **<1% mean error**

Undergraduate Thesis, École Polytechnique / The Exploration Company

Sep. 2023 – May 2024

- vision-based guidance system for autonomous docking of the [Nyx spacecraft](#) (selected by Axiom for ISS support)

PUBLICATIONS

Xu, W., Poussi, E., et al. *PantheonOS: An Evolvable Multi-Agent Framework for Automatic Genomics Discovery*. Preprint, 2026. [DOI](#)

TECHNICAL SKILLS

Programming & Frameworks: Python, C/C++, PyTorch, CUDA, ROS2, MuJoCo, Hugging Face, ACADOS, GSplat, GTSAM, CLIPSeg, Habitat-Sim

Languages: French (native), English (TOEFL 109), Mooré (fluent), German (basic)

PROJECTS

RL for Algorithmic Trading: custom high-frequency market simulator with PPO, Actor-Critic, and DQL agents with reward-free exploration.

AWARDS

French Gov. Excellence Scholarship · 2nd, 2021 Youth Olympiads (Legion of Honor) · 1st nationwide, 2020 Burkina Faso A-levels

EXTRA-CURRICULAR ACTIVITIES

Stanford BGSA Fundraising Chair · **Cheer Up** cancer nonprofit · **XProjets** consulting PM

Sports: Handball (France intercollegiate championship), Track & Field **Arts:** Drawing, Painting, Dancing