# Darius Dayu Giannoli

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Computer science undergraduate researching robotics, learning-based control, and embedded sensing

## EDUCATION

**Swiss Federal Institute of Technology Lausanne, EPFL** — Expected Jun 2027
*Bachelor of Science in Computer Science* — Lausanne, Switzerland

- **Coursework**: Machine Learning, Algorithms, Computer Systems, Signal Processing, Electronics
- **Laidlaw Research & Leadership Scholar**; recipient of the Taylor & Francis Highly Commended Poster Award.

## RESEARCH EXPERIENCE

**Swiss Federal Institute of Technology Lausanne, EPFL** — Jun 2025 – Present
*Student Researcher – Laboratory of Intelligent Systems (Prof. Floreano)* — Lausanne, Switzerland

- Developing world models to jointly control flight and morphology in morphing quadrotors.
- Designed a body-motion interface for first-person control of a simulated aerial swarm.
- Studied how dorsal haptic feedback affects operator performance and embodiment.

**National University of Singapore, NUS** — Jul 2026 – Sep 2026
*Research Intern – Soft Robotics Laboratory (Prof. Laschi)* — Singapore

- Developed embedded firmware supporting multi-node chaining of triaxial soft sensors.
- Calibrated soft sensors and processed signals for integration into deformable robots.

**Nanyang Technological University, NTU** — Feb 2026 – Mar 2026
*Research Intern – Robotics Research Center (Prof. Ming)* — Singapore

- Developed a memory-efficient object-recognition method using RCE-NNs.
- Evaluated object-recognition and localization models on stereo images.
- Selected for the Global Connect Fellowship (1% acceptance rate).

## PUBLICATIONS

Yang Chen*, **Darius Giannoli***, Dario Floreano. "Body-Motion Control of a Simulated Aerial Swarm from a First-Person View." *IEEE SII 2027*, accepted. *Equal contribution (co-first authors).

## SELECTED ROBOTICS PROJECTS

**EPFL AI Team Robotics** – Humanoid Project Lead — Dec 2025 – Jul 2026

- Launched and led a 9-student team developing EPFL's first humanoid robot; presented the project to NVIDIA.
- Contributed to VR teleoperation and imitation-learning pipelines for autonomous grasping.

**EPFL Npulse** – ML & Software Team Leader — Sep 2025 – Nov 2025

- Led 12 graduate students on vision-based control, speech interfaces, and haptics for an arm prosthesis.
- Developed an end-to-end grasping pipeline combining point-cloud segmentation and speech recognition.
- Adapted Hugging Face LeRobot for prosthetic-arm control; designed an IMU and flex-sensor teleoperation interface.

## SKILLS

**Programming & Tools:** Python, C++, C, Java, Git/GitHub, Linux, Docker, LaTeX
**Robotics & Simulation:** ROS, ROS 2, Gazebo, URDF, NVIDIA Isaac Sim, Isaac Lab, MuJoCo, Unity
**Machine Learning & Vision:** PyTorch, Hugging Face, OpenCV, Jupyter
**Embedded Systems:** Arduino, PSoC Creator, ModusToolbox, MPLAB X IDE