Internship Offer: Project Reve

Reve is a research project investigating whether personalized, morphology-based clothing guidance can help people consume fewer garments. Instead of following seasonal fashion trends, the project promotes a durable and individual approach to dressing, grounded in each person's own physical characteristics and style. The central hypothesis is that a tool that measures a user's relevant physical characteristics and shows them realistic, computer-generated images of themselves wearing garments suited to those characteristics can encourage more intentional choices and reduce overall clothing consumption. The internship contributes to building this tool using the computer vision methodologies.

The intern will help design and develop a virtual try-on tool that:

- captures the user's relevant body measurements and morphology,
- generates computer-generated images of the user wearing selected garments, and
- recommends garments matched to the user's characteristics and personal style rather than to prevailing trends.

The tool will be built on the GAPS [1] method to train the system across a range of garments and body poses, and you will contribute to the user study assessing whether the tool changes participants' clothing consumption.

Main tasks

- Implement and adapt the GAPS method to model garments and body poses in the test dataset.
- Assemble and curate a dataset of garments and poses for training and evaluation.
- Develop the virtual try-on pipeline: measurement, garment fitting, and image generation.
- Integrate the components into a usable tool for study participants.
- Ensure responsible handling of participants' personal and body-related data.
- Document the work and contribute to project reporting.

Candidate profile

- Currently pursuing a Master's or engineering degree in computer science, computer vision, AI, or a related field.
- Solid programming skills (Python) and experience with a deep learning framework (PyTorch or TensorFlow).
- Interest in computer vision, virtual try-on, or human-centric image generation.
- An interest in sustainability and responsible fashion is a plus.
- Autonomy, rigor and good communication skills.
- Awareness of privacy and ethics when working with images of people and body data.

Practical information

- **Duration:** 6 months
- **Start date:** February 2027
- **Location:** Lyon (LIRIS laboratory at Ecole Centrale de Lyon)
- **Supervision:** Shaifali Parashar
- **Compensation:** around 500 euros per month
- **Application:** send a CV, master transcripts and a letter of recommendation to shaifali.parashar@gmail.com.

[1] R. Chen, L. Chen and S. Parashar. GAPS: Geometry-Aware, Physics-Based, Self-Supervised Neural Garment Draping. In 3DV, 2024.