# LORENZO UTTINI

London, United Kingdom

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## **EDUCATION**

## University College of London, UK

September 2024 - Present

MSc in Robotics and Artificial Intelligence

GPA: 89%

Relevant Courses: Reinforcement Learning, Robotics Navigation, Robotics Manipulation

San Francisco State University, USA

August 2023 - December 2023

Exchange Semester

GPA: 4.0/4.0

Relevant Courses: Machine Learning for Healthcare, AI Explanability

University of Pavia, Italy

September 2021 - July 2024

BSc in Artificial Intelligence

Graduated: 110/110 cum Laude

Relevant Courses: Machine Learning, Deep Learning, Natural Language Processing Joint Degree: University of Pavia, University of Milan, University of Milan-Bicocca

#### WORK EXPERIENCE

#### University College of London, London (UK)

December 2024 - Present

Graduate Research Student - Supervised by Prof. Valerio Modugno

Conducted research on sim-to-sim transfer for the PAL Robotics Kangaroo robot, developing walking policies in Isaac Lab and MuJoCo. Currently training a Vision-Language Model (VLM) on diverse human walking videos to create an evaluator for robotic locomotion tasks, aimed at generating optimal reward functions to enhance Kangaroo's gait performance.

# Cy4gate, Rome (Italy)

February 2024 - May 2024

Machine Learning Engineer Intern

Hybrid internship under an Italian Cybersecurity and Cyberintelligence company.

- Developed different machine learning models to detect malign website domains generated by Domain Generation Algorithms (DGAs) employing Keras.
- Collected and processed data from built-in logs and external databases (200k+ domains) using Scikit-Learn for feature extraction and Streamlit as interactive web application for the best model.

### **PUBLICATIONS**

Fabio Amadio, Hongbo Li, **Lorenzo Uttini**, Serena Ivaldi, Valerio Modugno, Enrico Mingo Hoffman. Learning to Walk with Hybrid Serial-Parallel Linkages: a Case Study on the Kangaroo Robot. HAL Preprint, 2025. hal-05072198v1

#### SELECTED PROJECTS

## Autonomous Robot Navigation with EKF and MPC link

Designed and simulated a navigation system combining Extended Kalman Filter for localization and Model Predictive Control for trajectory tracking in PyBullet.

### 3D Point Cloud Table Detection and Segmentation link

Developed segmentation and classification pipelines using DGCNN on RGB-D point clouds, integrating ZoeDepth for monocular depth estimation.

#### EXTRA-CURRICULAR & SCHOLARSHIPS

**LeadTheFuture**: Among the few italian students selected to be mentees for a leading mentorship non-profit organization for students in STEM with a rate admission of 15%.

San Francisco State University: Selected as Italian Country Ambassador for international events and meetings.

ManiTese Onlus: Remote volunteering for an italian organization.

Unipv Scholarship: Classified third among 300+ students to obtain a merit scholarship of 5000\$ to study one semester in San Francisco awarded by University of Pavia.

#### **SKILLS**