

KADIR YAVUZ KURT

Control and Automation Engineering Student ~ ITU

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📍 Istanbul, Turkey

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SUMMARY

Undergraduate researcher in Control and Automation Engineering focused on legged locomotion and reinforcement learning for robotic control. Interested in sim-to-real transfer, motion generation for humanoid and quadruped robots, and the application of deep RL to real-world robotic systems.

TECHNICAL SKILLS

Robotics & Simulation: ROS/ROS2, Gazebo, RQT, MoveIt, Navigation Stack, NVIDIA Isaac Sim, Isaac Lab, Isaac Gym

Programming: Python, C++, C

Libraries & Frameworks: PyTorch, TensorFlow, OpenCV, OpenGL

Tools & Platforms: Git, Linux, Docker, MATLAB

PUBLICATIONS

[1] **A Comparative Study of Text-Driven Diffusion Models for Generative Human-Like Motion**
A. I. Ozcetin, B. Tantay, K. Y. Kurt, and H. Temeltas. *IEEE Conf. on Artificial Intelligence (CAI)*, 2026.
DOI:(10.1109/CAI68641.2026.11536596)

EDUCATION

2024 -
2027 (Expected) **Istanbul Technical University - B.S. in Control and Automation Engineering**
Extracurricular: IEEE ITU Student Branch — VP of Technical Affairs (06/2025–06/2026), Technical Lead RAS (10/2024–06/2025)

2019 -
2024 **Istanbul Technical University - B.S. in Mechanical Engineering**
Switched Majors to Control and Automation Engineering in 2024

PROFESSIONAL EXPERIENCE

12/2025 -
Present **LA2 Dynamics Mühendislik A.Ş.** **Robotics Software Developer**
• Developing RL-based locomotion controllers for Sarbot L1, a military-grade quadruped, with a focus on sim2real transfer.

05/2025 -
12/2025 **LTC İnovasyon A.Ş.** **Robotics Software Developer**
• Developed RL based locomotion policies for Unitree Go2 and G1 robots in NVIDIA Isaac Lab; implemented custom inverse kinematics controllers in ROS2 for manipulation tasks

10/2024 -
Present **ITU Robotics Laboratory** **Undergraduate Researcher**
• Conduct research on wheeled-legged locomotion and humanoid robot motion generation using diffusion models
• Deploy and evaluate NVIDIA Isaac Lab sim-to-real applications for reinforcement learning experiments

Summers
2023, 2024 **METU ROMER** **Undergraduate Research Intern**
Simulated and controlled robotic arms using ROS/Gazebo; contributed to the Nautilus autonomous underwater robot project.

05/2022 -
05/2024 **ITU BIOBEE** **Software Team Leader**
• Led a team developing ROS-based motor control software for a lower-limb exoskeleton system; competed in Teknofest 2023 under the *İnsanlık Yararına Teknolojiler* category

PROJECTS

ROS2 / C++ **Warthog UGV ROS2 Migration** github.com/kyavuzkurt/warthog
Ported the Clearpath Warthog UGV simulation and driver stack from ROS1 to ROS2; updated launch files, converted deprecated APIs, and validated navigation in Gazebo.

Python **Linea Caelestis — Chess Engine** github.com/kyavuzkurt/Linea-Caelestis
Implemented a chess engine in Python featuring move generation, position evaluation, and a search algorithm with alpha-beta pruning.

LANGUAGES

English - Advanced, **Turkish** - Native, **Japanese** - Conversational