KADIR YAVUZ KURT

Control and Automation Engineering Student ~ ITU

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SUMMARY

Control and Automation Engineering student specializing in robotics and reinforcement learning. Actively developing real-time locomotion and manipulation systems using ROS2 and NVIDIA Isaac. Passionate about building and contributing to open-source robotics frameworks.

SKILLS

Core: Robot Dynamics & Control · Robot Simulation · Legged Locomotion & Manipulation · Reinforcement Learning

Tools: ROS2/ROS · Gazebo · MoveIt · NVIDIA Isaac (Sim/Lab/Gym) · Linux · Git

Languages: Python · C++ · C · MATLAB

INDEPENDENT PROJECTS

- **ROS2 Face Tracker**: Real-time DNN face detection (30 FPS) · Arduino-controlled pan-tilt · ROS2 Control Framework integration.
- **Chess Engine**: Developed a chess engine using Python · Implemented minimax algorithm with alpha-beta pruning · Designed a simple GUI with Pygame.

EDUCATION

2024 - Ongoing **B.S. Control & Automation Engineering** — **Istanbul Technical University**
Expected Graduation: 2027
Extracurricular:
- **IEEE ITU Student Branch** — Vice President in Charge of Technical Affairs (06/2025–Present); Technical Lead of RAS Committee (10/2024–06/2025): Led robotics initiatives, mentored 10+ students, and delivered workshops on Git, Linux, and Python.
- **ITU Robotics Laboratory** — Undergraduate Researcher (10/2024–Present): Currently working on Human like motion generation for humanoid robots using reinforcement learning techniques and deployment of multi-agent reinforcement learning algorithms on quadruped robots.

2019 - 2024 **B.S. Mechanical Engineering** — **Istanbul Technical University**
Switched Majors in 2024
Extracurricular:
- **ITU BIOBEE** — Software Team Leader (05/2022–05/2024): Controlled pneumatic actuators via Raspberry Pi using IMU; explored EEG-driven actuation; competed in Teknofest 2023 robotics competition.

EXPERIENCE

05/2025 - Present **Robotics Software Developer** — **LTC İnovasyon A.Ş.**
- Develop and implement locomotion and manipulation systems for humanoid and quadruped robots.
- Utilize NVIDIA Isaac Lab and ROS2 for robotic simulation and control applications.

07/2024 - 09/2024 **Undergraduate Researcher Intern** — **METU ROMER**
07/2023 - 09/2023
- Contributed to the Nautilus underwater robot project; implemented OpenCV algorithms for fin detection and tracking.
- Assisted in development of autonomous underwater navigation systems and designed robot components.
- Simulated and controlled a UR3e robot arm using ROS and Gazebo; implemented real-time data logging.

LANGUAGES

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