



MEHMET TURAN YARDIMCI

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• ABOUT MYSELF

Computer Engineering graduate specialized in robotics, artificial intelligence, and autonomous systems. Developed RL implementations from scratch and quadruped robot locomotion. Experienced in GPU-accelerated RL training with NVIDIA Isaac Lab and MuJoCo simulation environments. Aiming to advance in robot learning and autonomous systems.

• WORK EXPERIENCE

18/08/2025 - 12/09/2025 - ADANA, TURKEY

COMPUTER ENGINEERING INTERN KIVANÇ TEKSTİL

- Supported in-house software development processes using .NET and C#.

Business or sector Manufacturing | **Department:** IT | **Website:** <https://www.kivancstekstil.com.tr/>

14/07/2025 - 11/08/2025 - ADANA, TURKEY

COMPUTER ENGINEERING INTERN MEDCEM

- Supported in-house software development using .NET and C#.

- Designed and implemented algorithmic solutions.

- Gained hands-on experience in software architecture, debugging, and UI design.

Business or sector Manufacturing | **Department:** IT | **Website:** <https://medcem.com.tr/en/>

• EDUCATION & TRAINING

01/10/2021 - 03/10/2025 - ADANA, TURKEY

BACHELOR'S DEGREE IN COMPUTER ENGINEERING (ENGLISH)- ÇUKUROVA UNIVERSITY

- Programming and algorithms (object-oriented programming, data structures, algorithms, programming languages)

- Computer systems and hardware (digital design, microprocessors, computer organization, circuit theory)

- Artificial intelligence and pattern recognition (AI systems, pattern recognition, optimal control)

- Networks and communication (computer networks, internet communication, operating systems)

- Mathematics and theory (linear algebra, differential equations, probability and statistics, discrete mathematics)

- Robotics and human-computer interaction (informatics in robotics, HCI, computer graphics)

Field(s) of study: Electronics and automation | **Final grade:** 2.85/4.00 | **Level in EQF:** 6 | **Type of credits:** ECTS | **Number of credits:** 240 | **Thesis:** Benchmarking Local Path Planners in ROS using the BARN Dataset | **Address:** Çukurova

Üniversitesi, Balcalı Kampüsü, 01330 Sarıçam/ADANA Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü 01330 |

Website: <https://www.cu.edu.tr/eng/>

ERASMUS+ EXCHANGE PROGRAM IN COMPUTER SCIENCE- BIALYSTOK UNIVERSITY OF TECHNOLOGY

- Robotics and automation (PID control, sensor integration, robot programming, control systems)
- Human-computer interaction (usability engineering, user interface design, application development)
- Software development (object-oriented programming in Java, business applications, mobile systems)
- Computer graphics (visualization techniques, graphical user interfaces, 2D/3D graphics)

Field(s) of study:Electronics and automation | Final grade: 4.9/5.0 | Level in EQF: 6 | Type of credits: ECTS | Number of credits: 30 | Address: 45A, Wiejska Street, Bialystok, Poland 15-351 | Website: <https://pb.edu.pl/en/>

LANGUAGE SKILLS

Mother tongue(s): **TURKISH**

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	C1	C1	C1	B1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user

SKILLS

Robot Learning

PPO | Actor-Critic | Reward Shaping | Domain Randomization | GAE | SAC

Programming

Python | C/C++ | NumPy | Git | CUDA | Linux | Ubuntu

Simulation

Isaac Lab | MuJoCo | Gazebo | RViz

AI/ML

PyTorch | TensorBoard | YOLO | OpenCV | CNNs

Robotics

ROS | Jetson | Pixhawk | PID Control

PROJECTS

01/12/2025 - CURRENT

Isaac G1 Humanoid VLM-RL Loco-Manipulation - Developing hierarchical VLM-RL system for Unitree G1 humanoid robot in NVIDIA Isaac Lab.

- Implemented multi-stage training: locomotion policy (99.6% success), arm reaching (50% success), and loco-manipulation.
- Integrating Florence-2 VLM for high-level semantic planning with PPO-based low-level motor control.
- **Technologies:** Isaac Lab, RSL-RL, PyTorch, Florence-2, Flow Matching, CUDA

Links <https://github.com/mturan33/isaac-g1-ulc-vlm>

01/11/2025 - 01/12/2025

Isaac Lab Anymal-C Quadruped Locomotion Training • Implemented PPO algorithm from scratch for Anymal-C quadruped robot in NVIDIA Isaac Lab environment.

- Achieved 17,000+ steps/second training speed on RTX 5070 Ti GPU.
- Professional-grade performance with domain randomization, reward shaping, and vectorized environments.

- **Technologies:** Isaac Lab, RSL-RL, PyTorch, CUDA, TensorBoard

Links github.com/mturan33/isaac-lab-any-mal-locomotion

01/09/2025 - 01/10/2025

MuJoCo Ant-v5 PPO Implementation • Implemented PPO and SAC algorithms from scratch using pure NumPy and PyTorch for MuJoCo Ant-v5 environment.

- Achieved 2700+ reward by eliminating hopping behavior through custom reward shaping.
- Integrated parallel environments (16 env), GAE, observation normalization, and learning rate annealing.

- **Technologies:** Python, PyTorch, NumPy, MuJoCo, TensorBoard

Links github.com/mturan33/mujoco-ant-ppo

01/08/2025 - 01/09/2025

Live Actor-Critic Training for CartPole • Created an interactive Streamlit web application demonstrating real-time Reinforcement Learning training.

- Implemented Actor-Critic algorithm with adjustable hyperparameters for educational purposes.

- **Technologies:** Python, PyTorch, Streamlit, Gymnasium

Links github.com/mturan33/my-actor-critic

01/11/2024 - 01/01/2025

PID Control Algorithm Implementation with NXT Robot • Implemented PID control algorithm with real-time sensor feedback on LEGO Mindstorms NXT robots.

- **Technologies:** NXC, Bricx Command Center, PID Controller

Links github.com/mturan33/PID_Implementation_With_NXT_Robot

01/11/2023 - 01/06/2024

YOLOv7 Fixed-Wing UAV Detection System

• PUBLICATIONS

Benchmarking Local Path Planners in ROS using the BARN Dataset (Pending Publication) 2026

Yardımcı, M.T., Çoğurcu, Y.E. Çukurova University Journal of the Faculty of Engineering.

• VOLUNTEERING

01/02/2022 - 01/10/2024 Adana, Türkiye

1.5 Adana AGM Alkar UAV Team • Led a team of 10+ members designing autonomous UAV systems.

- Integrated YOLOv5, Jetson Nano, and Pixhawk for TEKNOFEST competitions.
- Designed AI-based image processing modules for autonomous navigation.

• CERTIFICATIONS

24/02/2024 Coursera

Supervised Machine Learning: Regression and Classification

Online -

Links <https://www.coursera.org/account/accomplishments/verify/CYR7P427QQWB>