

Arda Sarp Yenicesu

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Education

Bilkent University , MS in Computer Engineering	Jan 2022 - Jan 2025
• GPA: 4.0/4.0	
Arizona State University , MS in Computer Science (Transfer)	Jan 2021 - Jan 2022
• GPA: 4.0/4.0	
Bilkent University , BS in Electrical and Electronics Engineering	Aug 2016 - Jun 2020
• GPA: 3.52/4.0	

Experience

AI Engineer , ASELSAN - Ankara, Türkiye	Apr. 2025 – Present
• Contributing to AI systems and technologies within defense and advanced tech sectors	
Research Assistant , LIRA Lab, Bilkent University - Ankara, Türkiye	Jan. 2022 – Jan. 2025
• Developed novel planning heuristics for task and motion planning, inspired by humans to use auxiliary objects effectively during execution. Implemented interpretable deep learning models for robotic decision-making regarding this heuristic, enabling transparent responsibility sharing between robots and auxiliary objects	
• Designed a hybrid manipulation planning framework that can achieve fine manipulation in constrained environments, that is scalable to collaborative and dynamic environments	
• Developed a locally adaptive robust anomaly detection using One-Class Classifiers to detect anomalies in sequential data sequences	
• Created an experience replay methodology for fair and efficient sampling considering the whole transition history, reducing the soft divergence in continuous control tasks	
• Utilized fast vision transformer architecture achieving a state-of-the-art inference speed for grasp configuration to enable real-time robotic applications in partially observable settings	
• Constructed comprehensive public robotic datasets regarding anomaly detection and auxiliary object usage	
Research Assistant , DMML, Arizona State University - Tempe, AZ	Mar. 2021 – Jan. 2022
• Investigated causal inference methods for detecting suspicious user behavior in social networks	
• Contributed to the development of generalized benchmarks for evaluating inference methodologies in hypergraph structures	

Skills

Languages: Turkish, English

Programming: Python, C/C++, Java, MATLAB, SQL

Domains: Deep Learning, Machine Learning, Reinforcement Learning, Planning, Computer Vision

Technologies: PyTorch, Tensorflow, Keras, OpenAI API, Pinecone, Git, Docker

Awards and Certifications

2024: Bilkentpreneur Challenge – *2nd Place*, BEBA Foundation, Bilkent University

2025: IBM Data Science Specialization

Publications

- H-MaP: An Iterative and Hybrid Sequential Manipulation Planner** 2025
Cicek, Berk[†], **Yenicesu, Arda Sarp**[†], Tuncer, Cankut Bora[†], Demiray, Kutay, Oguz, Ozgur S.
Robotics and Automation Letters
- CUER: Corrected Uniform Experience Replay for Off-Policy Continuous Deep Reinforcement Learning Algorithms** 2024
Yenicesu, Arda Sarp[†], Mutlu, Furkan B[†], Kozat, Suleyman S, Oguz, Ozgur S
Preprint
- Interpretable Responsibility Sharing as a Heuristic for Task and Motion Planning** 2024
Yenicesu, Arda Sarp[†], Nourmohammadi, Sepehr[†], Cicek, Berk, Oguz, Ozgur S
Under Review @ Planning and Learning for Autonomous Robotics (Robotics and Autonomous Systems)
- Locally Adaptive One-Class Classifier Fusion with Dynamic lp-Norm Constraints for Robust Anomaly Detection** 2024
Nourmohammadi, Sepehr[†], **Yenicesu, Arda Sarp**[†], Arashloo, Shervin Rahimzadeh, Oguz, Ozgur S
Under Review @ Pattern Recognition
- Cross-Lingual Transfer Learning for Misinformation Detection: Investigating Performance Across Multiple Languages** 2023
Ozcelik, Oguzhan[†], **Yenicesu, Arda Sarp**[†], Yildirim, Onur[†], Haliloglu, Dilruba Sultan[†], Eroglu, Erdem Ege[†], Can, Fazli
Proceedings of the 4th Conference on Language, Data and Knowledge
- FViT-Grasp: Grasping Objects With Using Fast Vision Transformers** 2023
Yenicesu, Arda Sarp[†], Cicek, Berk[†], Oguz, Ozgur S
Preprint

[†] Equal contribution