

Cevahir Koprulu

cevahir.koprulu@utexas.edu · 1-512-902-3307 · [Website](#) · [Github](#) · [LinkedIn](#)

EDUCATION

University of Texas at Austin, Austin, TX, USA

Electrical and Computer Engineering

Interests: Reinforcement Learning (RL), Generalization, and Curriculum Learning.

M.S. 2023, PhD 2026

GPA: 3.93/4

Bilkent University, Ankara, Turkey

Electrical and Electronics Engineering

B.Sc. June 2021

GPA: 3.73/4

Honours/Awards:

Bilkent University Comprehensive Scholarship

Scholarship of Turkish Prime Ministry

Bilkent University EEE Department High Honours

University Entrance Exam, Ranked 24th among 2 million students

FIRST Robotics Competition 2015: Recycle Rush, Rookie All-Star Award

WORK EXPERIENCE

Bosch Center for Artificial Intelligence

Research Intern (all work is under NDA)

Python, PyTorch

Sunnyvale, CA

May 2025 - August 2025

- Developed **CL4AD**, the *first* integration of curriculum learning into GPUDrive, a batched autonomous driving simulator, reducing wall clock time to achieve 99% success rate by 77%, more than a billion steps earlier than domain randomization, i.e., the default uniform scenario sampling method.

Honda Research Institute - US

Research Intern (all work is under NDA)

Python, PyTorch, RAY

Ann Arbor, MI

May 2024 - August 2024

- Developed an **action advising framework**, GEN2SPEC, that distills knowledge of generalist agents to train specialist agents in a continual learning setting. This framework accelerates the training of an RL agent via action advice from a transformer-based meta-RL agent that can adapt to unseen tasks.

Eatron Technologies

Engineering Intern (all work is under NDA)

Python, C++, PyTorch, ROS

Istanbul, Turkey

June 2020 - June 2021

- Designed **graph convolutional** and **self-attention**-based neural network architectures to extract spatio-temporal features of a traffic scene for trajectory prediction in a Level-2+ ADAS powered vehicle.

ROKETSAN (in collaboration with Bilkent University)

Industrial Design Project (all work is under NDA)

Python, C++, PyTorch, ROS

Ankara, Turkey

Sept 2019 - June 2020

- Developed a mobile robot that follows a human leader, combining **YOLOv3 for object detection** and **artificial potential field method for path planning** in a mapped area with unknown dynamic obstacles.

RESEARCH WORK

[Neural Stochastic Differential Equations for Uncertainty-Aware, Offline Reinforcement Learning](#)

Cevahir Koprulu, Franck Djeumou, Ufuk Topcu

ICLR, 2025

[Safety Prioritizing Curricula for Constrained Reinforcement Learning](#)

Cevahir Koprulu, Thiago D. Simão, Nils Jansen, Ufuk Topcu

ICLR, 2025

[Dense Dynamics-Aware Reward Synthesis: Integrating Prior Experience with Demonstrations](#)

Cevahir Koprulu, Po-han Li, Tianyu Qiu, Ruihan Zhao, Tyler Westenbroek, David

L4DC, 2025

Fridovich-Keil, Sandeep P. Chinchali, Ufuk Topcu

[Joint Learning of Reward Machines and Policies in Environments with Partially Known](#)

Semantics

Artificial Intelligence, 2024

Christos Verginis, **Cevahir Koprulu**, Sandeep Chinchali, Ufuk Topcu

[Risk-Aware Curriculum Generation for Heavy-tailed Task Distributions](#)

Cevahir Koprulu, Thiago D. Simão, Nils Jansen, Ufuk Topcu

UAI, 2023

[Reward-Machine-Guided, Self-Paced Reinforcement Learning \(Full Paper\)](#)

Cevahir Koprulu, Ufuk Topcu

UAI, 2023

TECHNICAL SKILLS

- Programming languages: (Expert) Python, (Proficient) C++, Julia
- Frameworks: PyTorch, JAX, TensorFlow, ROS, RAY

RELEVANT COURSEWORK

- **UT Austin:** Online Learning, Causality and Reinforcement Learning, Statistical Machine Learning, Learning-based Optimal Control, Game-Theoretic Modeling of Multi-Agent Systems, Program Synthesis, Cyber-Physical Systems, Reinforcement Learning, Convex Optimization, Probability and Statistics, and Complex Networks in the Real World.
- **École polytechnique fédérale de Lausanne** (Exchange - Spring 2019): Image Analysis and Pattern Recognition, Convex Optimization, Deep Learning, and Biological Modelling of Neural Networks.
- **Bilkent University:** Statistical Learning and Data Analytics, Robust Feedback Theory, Introduction to Financial Mathematics, Neural Networks, and Game Theory.

RESEARCH AND LEADERSHIP EXPERIENCES

Center for Autonomy*Ph.D. Student*

Austin, TX

Aug 2021 - Ongoing

- Designed curriculum learning algorithms for 1) constrained environments with cost budgets, 2) rare and risky tasks under heavy-tailed task distributions, and 3) long-horizon tasks described by temporal logic specifications.
- Developed an uncertainty-aware approach that separately captures epistemic and aleatoric uncertainty incorporating physics constraints to address model exploitation.
- Proposed a reward-shaping mechanism that integrates abundant task-agnostic trajectories and a few task-specific expert demonstrations for robot manipulation tasks.

Systems Laboratory*Undergraduate Researcher*

Ankara, Turkey

Sept 2019 - July 2021

- Developed **human driver models** from real-traffic data that can change its reasoning level dynamically by combining **level-k game theory** and **reinforcement learning**.

IEEE Robotics and Automation Society at Bilkent University*Chairman*

Ankara, Turkey

May 2017 - June 2018

- Organized “Mühendis Kafası” in cooperation with Technology Development Foundation of Turkey: Series of sessions on Computer Vision and Deep Learning.
- Gave lectures on robotics, control techniques, and related micro-controller programming: EE-101: Introduction to Robotics with Arduino.

LANGUAGE SKILLS

- Turkish: Native proficiency
- English: TOEFL 110/120 (Fall 2020)
- French: DELF B1 (Spring 2015)

RECREATIONAL INTERESTS

I enjoy climbing, cycling, watching/playing soccer (football :)), and learning about history and psychology.