

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

Sunnyvale, CA

Research Intern (all work is under NDA)

May 2025 - August 2025

Python, PyTorch

- 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

Ann Arbor, MI

Research Intern (all work is under NDA)

May 2024 - August 2024

Python, PyTorch, RAY

- 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.

Eaton Technologies

Istanbul, Turkey

Engineering Intern (all work is under NDA)

June 2020 - June 2021

Python, C++, PyTorch, ROS

- 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)

Ankara, Turkey

Industrial Design Project (all work is under NDA)

Sept 2019 - June 2020

Python, C++, PyTorch, ROS

- 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

ICLR, 2025

Cevahir Koprulu, Franck Djeumou, Ufuk Topcu

Safety Prioritizing Curricula for Constrained Reinforcement Learning

ICLR, 2025

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

Dense Dynamics-Aware Reward Synthesis: Integrating Prior Experience with Demonstrations

L4DC, 2025

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

Fridovich-Keil, Sandeep P. Chinchali, Ufuk Topcu

Joint Learning of Reward Machines and Policies in Environments with Partially Known

Artificial Intelligence, 2024

Semantics

Christos Verginis, Cevahir Koprulu, Sandeep Chinchali, Ufuk Topcu

Risk-Aware Curriculum Generation for Heavy-tailed Task Distributions

UAI, 2023

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

Reward-Machine-Guided, Self-Paced Reinforcement Learning (Full Paper)

UAI, 2023

Cevahir Koprulu, Ufuk Topcu

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.