SAEED GHOORCHIAN

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/saeed-ghoorchian
/guchis

EDUCATION

Ph.D. in Computer Science (Machine Learning), University of Tübingen, Germany.
2018 - Present

Thesis: Online Learning under Partial Feedback
Advisor: Prof. Setareh Maghsudi

M.Sc. in Applied Mathematics, Joint Erasmus Mundus Master Program,
University of Hamburg (primary), Germany, and University of L'Aquila (secondary), Italy.
2015 - 2017

Thesis: Kernelized Principal Component Analysis of a Linear Parameter Varying model of the Gyroscope
Adviser: Prof. Herbert Werner

B.Sc. in Pure Mathematics, Iran University of Science and Technology, Iran.
2009 - 2014

PUBLICATIONS

[1] **Saeed Ghoorchian** and Setareh Maghsudi. "Multi-Armed Bandit for Energy-Efficient and Delay-Sensitive Edge Computing in Dynamic Networks with Uncertainty". *IEEE Transactions on Cognitive Communications and Networking (TCCN)*, 2021.

[2] Onur Atan, **Saeed Ghoorchian**, Setareh Maghsudi, and Mihaela van der Schaar. "Data-Driven Online Recommender Systems with Costly Information Acquisition". *IEEE Transactions on Services Computing (TSC)*, 2021.

[3] **Saeed Ghoorchian***, Behzad Nourani-Koliji*, and Setareh Maghsudi. "Linear Combinatorial Semi-Bandit with Causally Related Rewards". *International Joint Conference on Artificial Intelligence (IJCAI)*, 2022.

[4] **Saeed Ghoorchian** and Setareh Maghsudi. "Bayesian Linear Bandits for Large-Scale Recommender Systems". *Under review*, 2022.

[5] **Saeed Ghoorchian**, Evgenii Kortukov, and Setareh Maghsudi. "Online Learning with Costly Features in Non-stationary Environments". *Under review*, 2022.
guchis/NCC-Bandits

[6] **Saeed Ghoorchian** and Setareh Maghsudi. "Non-stationary Delayed Combinatorial Semi-Bandit with Causally Related Rewards". *Under review*, 2022.

WORK EXPERIENCES

Senior Researcher, University of Tübingen, Germany.
June 2022 - Present

Designing algorithms to address reinforcement learning problems with perturbed rewards and inverse reinforcement learning problems in multi-agent systems.

Consultant on Algorithm Development, Datalyze Solutions GmbH, Germany.
May 2022 - July 2022 · Freelance

Algorithm design and development of optimization problems for real-time task planning in changing environments.

Research Assistant, Technical University of Berlin, Germany.
May 2018 - May 2022

Developing frameworks and algorithms to model and solve online learning problems with partial feedback in dynamic environments with various characteristics, such as causal relations, costly features, and high-dimensional features.

Guest Researcher, Hamburg University of Technology, Germany.
November 2017 - March 2018

Applying kernelized principal component analysis, support vector machines, and ϵ-support vector regression for modeling systems of high complexity.

guchis/An-epsilon-SVR-Approach-for-Model-Identification

guchis/Dimensionality-Reduction-Using-KPCA

ACADEMIC EXPERIENCES AND APPEARANCES

Teaching Assistant, University of Tübingen, Germany.
October 2022 - Present
October 2021 - March 2022

Course: Introduction to Game Theory with Application in Multi-Agent Systems.

Supervision, Technical University of Berlin and University of Tübingen, Germany.
May 2021 - May 2022

Supervising bachelor and master students to design learning algorithms.

Reviewer: IEEE ISIT 2022 – AISTATS 2021 – IEEE TCNC.

Talks and Presentations:

September 2022	University of Tübingen
July 2022	IJCAI 2022
November 2021	University of Tübingen
June 2021	University of Tübingen
April 2021	University of Tübingen
September 2017	Hamburg University of Technology

SKILLS

- Python (Proficient), Matlab (Good), C++ (Basic), R (Basic).
- Pytorch, Keras, Tensorflow, Pandas, Numpy, Matplotlib.
- MS Azure, Simulink.
- English (Fluent), Persian (Native), German (Basic), Italian (Basic).

AWARDS AND HONORS

September 2015	Admission as one of the top students for master studies.
August 2015	Full scholarship from the Erasmus Mundus program (from EU).
September 2009	Admission as one of the top students for bachelor studies.