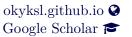
Oğuz Kaan Yüksel

Ph.D. Candidate

Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland



Education ____

École Polytechnique Fédérale de Lausanne (EPFL)

Lausanne

Ph.D. student in Computer Science, Advisor: Prof. Nicolas Flammarion

2022 - 2027 (expected)

Masters in Data Science and Mathematics (minor); GPA: 5.79/6

2020 - 2022

Boğaziçi University

İstanbul

Bachelor of Computer Engineering and Mathematics (double major); GPA: 3.85/4 (rank: 1st)

2015 - 2020

Publications

(* - equal contribution)

Preprints

1. Generalization Bounds for Autoregressive Processes and In-Context Learning Oğuz Kaan Yüksel, Nicolas Flammarion Preprint under review at AISTATS 2026.

 Incremental Learning of Sparse Attention Patterns in Transformers Oğuz Kaan Yüksel, Rodrigo Alvarez Lucendo, Nicolas Flammarion Preprint under review at ICLR 2026.

Conference

 On the Sample Complexity of Next-Token Prediction Oğuz Kaan Yüksel, Nicolas Flammarion Artificial Intelligence and Statistics (AISTATS) 2025.

2. Long-Context Linear System Identification

Oğuz Kaan Yüksel, Mathieu Even, Nicolas Flammarion International Conference on Learning Representations (ICLR) 2025.

 First-order ANIL provably learns representations despite overparametrisation Oğuz Kaan Yüksel, Etienne Boursier, Nicolas Flammarion International Conference on Learning Representations (ICLR), 2024.

4. Semantic Perturbations With Normalizing Flows for Improved Generalization Oğuz Kaan Yüksel, Sebastian Stich, Martin Jaggi, Tatjana Chavdarova International Conference on Computer Vision (ICCV), 2021.

5. LatentCLR: A Contrastive Learning Approach for Unsupervised Discovery of Interpretable Directions

Oğuz Kaan Yüksel*, Enis Simsar*, Ezgi Gülperi Er, Pınar Yanardağ International Conference on Computer Vision (ICCV), 2021.

6. Adversarial Training with Orthogonal Regularization

Oğuz Kaan Yüksel, İnci Meliha Baytaş

28th Signal Processing and Communications Applications Conference (SIU), 2020.

Research & Work Experience

Data Friendly Space

NLP Engineer Intern NLP Engineer (part-time) Jul 2021 - Aug 2021

Sep 2021 - Jan 2022

- Developed text classification solutions for heterogeneous, hierarchical multi-label classification problem.
- Used MLFlow to track experiments and deploy models.
- Implemented online testing environment and conducted user experiments.
- Designed after-deployment workflows including continuous monitoring and learning.

RateMe

Co-founder, ML Engineer (part-time)

Jan 2019 - Jan 2023

- Developed cloth segmentation and cloth classification solutions using off-the-shelf deep networks.
- Designed data ontology and implemented pipelines for data standardization and processing.
- Implemented fully automated ML inference pipelines.
- Managed in-house GPU and web server. Built full-stack demo websites.

Vispera

R&D Intern Jun 2018 - Dec 2018

- Designed a mobile AR application that provides real-time object recognition on retail surfaces.
- Implemented on-device image preprocessing such automatic image capturing, rectification and stitching.
- Implemented a TensorRT backend which runs computer vision models for object.

Scholastic Achievements

- 2022-2023 EDIC PhD Fellowship
- 2020-2022 EDIC Excellence Fellowship
- 2020 1st ranked student, department of Computer Engineering, Boğaziçi University
- 2020 **2nd** best senior project, department of Computer Engineering, **Boğaziçi University**
- 2019 Erasmus exchange grant
- 2015-2020 Boğaziçi Success Scholarship, Boğaziçi University
- 2015-2020 National Success Scholarship, Boğaziçi University
- 2015 **3rd** ranked out of 1,987,488 students, **ÖSYS** (equivalent of SAT)
- 2015 Silver medal, Turkiye National Informatics Olympiad
- 2012 Silver medal, Turkiye National Elementary Mathematics Olympiad

Teaching & Supervision Experience ____

• Teaching Experience

- Optimization for Machine Learning (Spring 2023, 2024, 2025)
- Machine Learning (Fall 2023, 2024, 2025)

• Master Project Supervision

- Mikulas Vanousek
- Rodrigo Alvarez Lucendo
- Margarita Sagitova
- Ender Doğan Işık
- Hichem Hadhri
- Yauheniya Karelskaya

Volunteering

- 2023-2024 RAMP program EPFL for the years
- 2023 Digital support after Kahramanmaraş earthquake in Türkiye
- 2020 Winter School on Synchronization with Suzan Üsküdarlı & NODDS Lab
- 2015-2017 Tutored programming (10+ games supervised) and mathematics for primary and high school students.