

# ALPEREN KANTARCI

**Github:** <https://github.com/Alpkant>

**Website:** <https://web.itu.edu.tr/kantarci/>

**Google Scholar:** <https://scholar.google.com/citations?user=0ePADzkAAAAJ>

**Email :** [kantarci@em.uni-frankfurt.de](mailto:kantarci@em.uni-frankfurt.de)

[alperenkantarci@gmail.com](mailto:alperenkantarci@gmail.com)

## WORK EXPERIENCE

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### Goethe University Frankfurt

October 2023 - Present

*Research and Teaching Assistant*

- I work under the supervision of Prof. Gemma Roig and Prof. Visvanathan Ramesh. I am a member of both CVAI Lab and Center for Cognition and Computation Lab.
- I am a PhD researcher within the ALI Project

### Istanbul Technical University

March 2021 - September 2023

*Graduate Research and Teaching Assistant*

- Teaching assistant of BLG-513E (image processing grad course), BLG-506E (computer vision with deep learning grad course), BLG-335E (analysis of algorithms undergrad course), BLG-411E (software engineering undergrad course) and ISE-309 (multimedia systems undergrad course).

### SIMIT Lab

Sep 2018 - Present

*Full Time Researcher*

- Full time researcher and MSc. student at SIMIT Lab which is directed by Prof. Dr. Hazım Kemal Ekenel. Joined to the lab as an undergraduate student in 2018.
- Research focuses on computer vision and deep learning. Main research areas are unsupervised learning, representation learning, cross-modality learning and biometrics. Master thesis focuses on face presentation attack detection.
- Involved in multiple collaboration projects with academia and industry as a senior member of the lab. Coordinated small student teams for different research projects.
  1. Created an anomaly detection framework which combines multiple layer of representations with one-class classification approach. Worked together with researchers from ISTI-CNR, Italy.
  2. Low resolution face recognition with multi-scale super-resolution project which is supported by TUBITAK (Scientific and Technological Research Council of Turkey) and ARRS (Slovenian Research Agency). Collaboration with Prof. Vitomir Struc from University of Ljubljana.
  3. Signature verification on real world documents with Yapı Kredi Technologies. One of the biggest banks in Turkey uses the developed system to detect signature forgeries on banking transaction documents.
  4. Masked face detection and usage analysis with Twitter data to analyze the usage of masks for COVID-19 pandemic. Joint project with QCRI (Qatar Computing Research Institute). Organized the FG workshop with a similar topic <https://fg4covid19.github.io/>

### Vispera

Jul 2018 - Sep 2018

*Intern*

- Developed an augmented reality (AR) app for supermarket shelf detection, and auditing by using mobile object detection models.
- Implemented perspective correction, panorama creation and object detection on mobile phones with cutting edge deep learning frameworks. ARCore has been used for AR part of the app.

## EDUCATION

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### Goethe University, Frankfurt Germany

October 2022 -

PhD

Faculty of Computer Science and Mathematics

### Istanbul Technical University, Turkey

September 2019 - June 2022

Master of Science

Overall GPA: 4.0

Department of Computer Engineering

## SELECTED PUBLICATIONS

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- A. Kantarcı**, H. Dertli, H.K. Ekenel, "Shuffled Patch-wise Supervision for Presentation Attack Detection", IEEE 20th International Conference of the Biometrics Special Interest Group (BIOSIG), Darmstadt, Germany, September 2021
- F.B. Massoli, F. Falchi, **A. Kantarcı**, Ş. Akti, H. K. Ekenel, "MOCCA: Multi-Layer One-Class Classification for Anomaly Detection", arXiv preprint arXiv:2012.12111. 2020, accepted to IEEE Transactions on Neural Networks and Learning Systems (TNNLS)
- D. Engin\*, **A. Kantarcı\***, S. Arslan, H. K. Ekenel, Offline Signature Verification on Real-World Documents, The IEEE Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2020
- A. Kantarcı**, H.K. Ekenel, "Thermal to Visible Face Recognition Using Deep Autoencoders", IEEE 18th International Conference of the Biometrics Special Interest Group (BIOSIG), Darmstadt, Germany, September 2019
- Purnapatra et. al. Face Liveness Detection Competition (LivDet-Face)-2021, IEEE International Joint Conference on Biometrics (IJCB), 2021

## ACADEMIC ACTIVITIES & HONORS & AWARDS

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- **Organizer** of the FG4COVID workshop.
- **Reviewer** of the ICIP (International Conference on Image Processing) and WACVMAPA (WACV2022 - Workshop on Manipulation, Adversarial, and Presentation Attacks in Biometrics)
- **Participant** of Eastern European Machine Learning (EEML) 2021 summer school
- **Participant** of IEEE Biometrics for AI summer school
- Cost ITC Conference Grant from Action CA16101
- 2nd place 2019-2020 ITU Reinforcement Learning (BLG-638E) and Deep Learning (BLG-561E) Graduate Course Autonomous Driving Challenge sponsored by Eatron Technologies.
- Scholarship from Facebook for special PyTorch and deep learning courses with only 200 students in worldwide.
- Dean's High Honor List
- Ranked 3500th among 2 millions students in 2014's university entrance exam

## LANGUAGE PROFICIENCY

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**English** : Full Professional Proficiency TOEFL:102 YDS:92.5

**Turkish** : Full Professional Proficiency

**Spanish** : Limited Working Proficiency

## TECHNICAL SKILLS

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<b>Programming Languages</b>	Python, C++, MATLAB
<b>Frameworks</b>	PyTorch, Keras, OpenCV

## EXTRACURRICULAR ACTIVITIES

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**IEEE and ACM**

*Student branches*

Member

- Organizer and participator for programming competitions and programming courses of the student branch.
- Leader of the computer vision study group.
- Gave lectures and workshops to undergraduate students.

## REFERENCES

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**Prof. Dr. Hazım Kemal Ekenel** [ekenel@itu.edu.tr](mailto:ekenel@itu.edu.tr)

**Prof. Dr. Gemma Roig** [roig@cs.uni-frankfurt.de](mailto:roig@cs.uni-frankfurt.de)

**Dr. Ferda Ofli** [fofli@hbku.edu.qa](mailto:fofli@hbku.edu.qa)