Deniz Engin

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Research Interests

Computer vision, natural language processing, multimodal learning, video understanding, video question answering

Education

Sep. 2020 – Jun. 2024 📕 Inria & University of Rennes - Rennes, France

PhD, Computer Science

Thesis: Video question answering with limited supervision

Advisor: Yannis Avrithis

Jury members: Ivan Laptev (Reviewer), Matthieu Cord (Reviewer),

Josef Sivic, Karteek Alahari, Luce Morin

Sep. 2014 – Nov. 2017 | Istanbul Technical University - Istanbul, Türkiye

M.Sc., Electronics Engineering

Participated in a 5-month Erasmus exchange program at KU Leuven,

Belgium

Sep. 2009 – Jul. 2014 | Istanbul Technical University - Istanbul, Türkiye

B.Sc., Electronics Engineering

Included a 1-year English language program

Professional Experiences

Sep. 2020 – Feb. 2024 PhD Student Inria – Rennes, France

Proposed parameter-efficient zero-shot and few-shot VideoQA: Publication [1]

Proposed a knowledge-based VideoQA method collaboration with

InterDigital: Publication [2]

Sep. 2020 – Jun. 2022 **Researcher** InterDigital – Rennes, France

Worked on multimodal video understanding projects - Video Cap-

tioning and VideoQA: Publication [2]

Jan. 2018 - Mar. 2020 R&D Engineer Specialist Yapı Kredi Technology - Istanbul, Türkiye

Developed offline signature detection & verification system: Publica-

Developed multimodal document classification system: Publication

Jul. 2017 – Sep. 2017 Research Intern EPFL Signal Processing Lab (LTS5) – Lausanne,

Switzerland

Cross-Pose Facial Expression Recognition via Transfer Learning: Pub-

lication [5]

Jul. 2016 – Jan. 2018 **Researcher** ITU SiMiT Lab – Istanbul, Türkiye

Single Image Dehazing via CycleGAN: Publication [6]

Facial Expression Recognition via Transfer Learning: Publication [7]

Selected Publications

- **D. Engin** and Y. Avrithis, "Zero-shot and few-shot video question answering with multi-modal prompts," in *Proc. ICCV Workshops*, 2023. **[Oral Presentation]**.
- **D. Engin**, F. Schnitzler, N. Q. Duong, and Y. Avrithis, "On the hidden treasure of dialog in video question answering," in *Proc. ICCV*, 2021.
- **D. Engin***, A. Kantarci*, S. Arslan, and H. K. Ekenel, "Offline signature verification on real-world documents," in *Proc. CVPR Workshops*, 2020.
- **D. Engin**, E. Emekligil, B. Oral, S. Arslan, and M. Akpınar, "Multimodal deep neural networks for banking document classification," in *Proc. IMMM*, 2019. **[Best Paper Award]**.
- **D. Engin**, C. Ecabert, H. K. Ekenel, and J.-P. Thiran, "Face frontalization for cross-pose facial expression recognition," in *Proc. EUSIPCO*, 2018.
- **D. Engin***, A. Genç*, and H. K. Ekenel, "Cycle-Dehaze: Enhanced cyclegan for single image dehazing," in *Proc. CVPR Workshops*, 2018.
- **D. Engin** and H. K. Ekenel, "Facial expression pair matching," in *Proc. SIU*, 2017.

Patents

- Quang Khanh Ngoc Duong, **Deniz Engin**, Francois Schnitzler, Yannis Avrithis. "System and method for question answering." U.S. Patent Application 18/292,252, filed Jul. 27, 2022.
- **Deniz Engin**, Yannis Avrithis, Quang Khanh Ngoc Duong, Francois Schnitzler. "Device and method for question answering." U.S. Patent Application 18/280,746, filed Mar. 8, 2022.

Skills

- Programming and Development Tools: Python, C, Unix Shell Scripting, SQL, Git, Docker
- **Deep Learning Libraries:** Pytorch, TensorFlow, Keras
- Language: Turkish (native), English (fluent), French (beginner)

Summer Schools & Symposiums

- ICVSS 2022 ■ International Computer Vision Summer School, Sicily, Italy. (10 -- 16 Jul.)
- ELLIS 2021 📕 ELLIS Doctoral Symposium, Tübingen, Germany. (27 Sep. -- 1 Oct.)
- PAISS 2021 PRAIRIE/MIAI Artificial Intelligence Summer School, Online. (5 9 Jul.)

Awards and Achievements

- 2019 Best Paper Award at IMMM 2019
- 2018 ECCV Woman in Computer Vision Workshop Travel Grant
- 2016-2017 Research Scholarship from National Research & Technical Council of Türkiye
- 2015-2016 ■ Exchange Student Grant by Erasmus Program

Reviewer Activities

2023 CVPR, ICCV

2022 **■** ECCV