

Ekrem Çetinkaya

Website: ekrcet.com
Email: ekrcet@gmail.com
Phone: +43 676 380 6495

PERSONAL PROFILE

Computer science professional holding a B.Sc. and a M.Sc. degree and currently pursuing a Ph.D. degree, with an expected graduation date of April 2023. Active researcher in the ATHENA project, focusing on deep learning, computer vision, and video encoding. Strong problem-solving, collaboration and fast learning skills, able to lead innovative research projects and work with cross-disciplinary teams.

EDUCATION

University of Klagenfurt Ph.D. in Computer Science	Klagenfurt, AUSTRIA 10/2019 - Current
– Dissertation: “Video Coding Enhancements for HTTP Adaptive Streaming Using Machine Learning”	
– Advisor: Christian Timmerer	
Ozyegin University M.Sc. in Computer Science, GPA: 3.92/4.00	Istanbul, TÜRKİYE 08/2018 - 08/2019
– Thesis: “Image Denoising Using Deep Convolutional Autoencoders”	
Ozyegin University B.Sc. in Computer Science, GPA: 3.28/4.00	Istanbul, TÜRKİYE 09/2013 - 06/2018

EXPERIENCE

ATHENA Christian Doppler (CD) Pilot Laboratory Ph.D. Researcher	Klagenfurt, AUSTRIA 10/2019 - Current
– Proposed and developed innovative solutions for enhancing video coding in HTTP adaptive streaming using machine learning techniques, resulting in 4 patent filings and 15 scientific publications in prestigious conferences and journals.	
– Possess extensive knowledge and expertise in various machine learning models (e.g. CNN, LSTM, 3D-CNN, Vision Transformer) and frameworks (e.g. PyTorch, Tensorflow) to achieve project objectives.	
– Demonstrated strong leadership abilities through effective project management and collaboration with colleagues from diverse backgrounds and nationalities.	
– Selected to serve as an academic reviewer and proceeding chair for conferences, demonstrating recognition of expertise within the field.	
Ozyegin University AI Labs M.Sc. Researcher	Istanbul, TÜRKİYE 08/2018 - 08/2019

SKILLS

- **Programming Languages:** Python, Java
- **Computer Skills:** PyTorch, Tensorflow, Keras, FFMpeg
- **Fundamentals:** Deep Learning, Machine Learning, Computer Vision, Video Encoding, Scientific Research

LANGUAGES

- **English:** Professional working proficiency
- **Turkish:** Native
- **German:** Intermediate (B1)
- **Arabic:** Beginner (A2)

AWARDS

- Best Doctoral Symposium Paper Award in ACM Multimedia Systems Conference (MMSys) 2021
- Best New Streaming Innovation Award in Streaming Media Readers' Choice Awards 2021

PATENTS

- Fast Multi-Rate Encoding for Adaptive Streaming Using Machine Learning 2022
- Fast Multi-Rate Encoding for Adaptive HTTP Streaming 2021

SELECTED PUBLICATIONS

- [1] J. Aguilar-Armijo, **E. Çetinkaya**, C. Timmerer, and H. Hellwagner, “ECAS-ML: Edge Computing Assisted Adaptation Scheme with Machine Learning for HTTP Adaptive Streaming”, in *International Conference on MultiMedia Modeling*, ser. MMM'22, Springer International Publishing, 2022, pp. 394–406.
- [2] **E. Çetinkaya**, H. Amirpour, and C. Timmerer, “LFC-SASR: Light Field Coding Using Spatial and Angular Super-Resolution”, in *2022 IEEE International Conference on Multimedia and Expo Workshops (ICMEW)*, 2022, pp. 1–6.
- [3] **E. Çetinkaya**, M. Nguyen, and C. Timmerer, “LiDeR: Lightweight Dense Residual Network for Video Super-Resolution on Mobile Devices”, in *2022 IEEE 14th Image, Video, and Multidimensional Signal Processing Workshop (IVMSP)*, 2022, pp. 1–5.
- [4] **E. Çetinkaya**, M. Nguyen, and C. Timmerer, “MoViDNN: A Mobile Platform for Evaluating Video Quality Enhancement with Deep Neural Networks”, in *International Conference on MultiMedia Modeling*, ser. MMM'22, Springer International Publishing, 2022, pp. 465–472.
- [5] M. Nguyen, **E. Çetinkaya**, H. Hellwagner, and C. Timmerer, “Super-Resolution Based Bitrate Adaptation for HTTP Adaptive Streaming for Mobile Devices”, in *Proceedings of the 1st Mile-High Video Conference*, ser. MHV '22, Denver, Colorado: Association for Computing Machinery, 2022, pp. 70–76, ISBN: 9781450392228.
- [6] **E. Çetinkaya**, H. Amirpour, C. Timmerer, and M. Ghanbari, “Fast Multi-Resolution and Multi-Rate Encoding for HTTP Adaptive Streaming Using Machine Learning”, *IEEE Open Journal of Signal Processing*, vol. 2, pp. 484–495, 2021.
- [7] **E. Çetinkaya** and M. F. Kirac, “Image Denoising Using Deep Convolutional Autoencoder with Feature Pyramids”, *Turkish Journal of Electrical Engineering & Computer Sciences*, vol. 28, no. 4, pp. 2096–2109, 2020.

Scan the QR code to access list of all publications, awards, patents, and extra works with details.



EXTRACURRICULAR ACTIVITIES

- Reviewer for IEEE OJ-SP, Frontiers in Signal Processing, ACM MM 2022, MMM 2021.
- Proceedings Chair for ACM Mile-High Video Conference 2022 and 2023.
- Blog writer for AI/ML research papers at Marktechpost.com.
- Designed and developed a mobile puzzle game, 'Rubicus', utilizing Unity engine for iOS and Android platforms.