Umut Özyurt

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git GitHub | 🔗 LinkedIn

Research Statement

My current research focuses on refining **stable diffusion** for personalized, high-fidelity image and video generation. I aim to build **controllable**, adaptable generative models that deliver both quality and diversity. Backed by experience in deep learning, face recognition, object detection, tracking, and thermal vision, I strive to push the boundaries of generative computer vision.

Education

Middle East Technical University (METU / ODTÜ) Ankara, Turkey
B.Sc. in Computer Science (Senior Year)   ***CGPA: 3.88/4.00*** *09/2020 – 06/2026*

Relevant Coursework: Guided Research (currently taking); Deep Generative Models (graduate); Advanced Deep Learning (graduate); Deep Learning (graduate); Introduction to Machine Learning — all completed with 4.0/4.0.

Publications

Meta-LoRA: Meta-Learning LoRA Components for Domain-Aware ID Personalization – paper link
  In Submission.)
  Baris Batuhan Topal, **Umut Özyurt**, Zafer Dogan Budak, R. Gokberk Cinbis

GRACE: Generating Socially Appropriate Robot Actions Leveraging LLMs and Human Explanations – paper link
  *International Conference on Robotics and Automation, **ICRA** 2025.*
  Fethiye Irmak Dogan, **Umut Özyurt**, Gizem Cinar, Hatice Gunes

Enhanced Thermal Human Detection with Fast Filtering for UAV Images – paper link
  IEEE International Informatics and Software Engineering Conference, IISEC 2023, Oral Presentation.
  Umut Özyurt, Begum Cicekdag, Zafer Dogan Budak, Seyda Ertekin

Research Experience

METU ImageLab | *Undergraduate Researcher* *09/2024 – Present*
  Advisor: Assoc. Prof. R. Gökberk Cinbiş; Conducting research on generative computer vision with state-of-the-art Stable Diffusion fine-tuning methods, dedicated to producing high-quality contributions in the field.

University of Cambridge | *Undergraduate Research Assistant* *07/2024 – 09/2024*
  Advisor: Prof. Hatice Güneş; Conducted research at the AFAR (Affective Intelligence and Robotics) Laboratory, playing a key role in every stage of paper development—including experimental design, implementation, and writing—for a study on uncertainty prediction using machine learning. Contributed as the second author and established the baseline methodology.

METU Intelligent Systems Laboratory | *Undergraduate Researcher* *07/2023 – 07/2024*
  Advisor: Assoc. Prof. Seyda Ertekin; Investigated thermal imaging for human detection by integrating edge computing devices (e.g., NVIDIA Jetson series) for real-time processing on UAVs.

Professional Experience

Syntonym | *Generative Computer Vision Researcher (Remote)* *09/2024 – Present*
  Researching diffusion models for high-fidelity face anonymization, integrating Control-Net to enhance Stable Diffusion fine-tuning, and exploring text-to-image personalization techniques for models such as SD1.5, SDXL, and FLUX.

Infodif | *Computer Vision Engineer/Researcher* *01/2024 – 07/2024*
  Developed and optimized a face recognition pipeline for the Turkish National Police utilizing multi-attribute recognition systems with custom deep learning architectures, designed to detect criminals even without having a stored face image.

AsisGuard | *Candidate Computer Vision Engineer/Researcher* *03/2023 – 12/2023*
  Implemented innovative computer vision solutions and edge computing optimizations; developed algorithms deployed in real product settings, while coordinating with summer interns to integrate these solutions into ongoing projects.

Projects

Advanced Style Transfer Implementation (Deep Generative Models Term Project)

Re-implemented the model and training pipeline of the CVPR 2023 paper *"Master: Meta Style Transformer for Controllable Zero-Shot and Few-Shot Artistic Style Transfer"*, creatively resolving critical ambiguities stemming from missing explanations. The project was acknowledged as the most complex and successful work of the term among all graduate-level submissions. The code is now the only public implementation of the paper, available on the GitHub page.

Honors & Leadership

METU Development Foundation Scholarship: Awarded for ranking in the Top 1000 among over 2.5 million applicants.

High Honor Student: Recognized for 7 consecutive semesters of academic excellence.

Technical Lead, METU Artificial Intelligence Society: Led society initiatives and projects to drive technical excellence.

Technical Skills, Certifications, & Professional Service

Technical Skills

Programming & Tools: Python, C++, Git, LaTeX, Overleaf, Weights&Biases.
Frameworks & Libraries: PyTorch, TensorFlow, ONNX, Keras, OpenCV, Pandas, Scikit-learn, TensorRT.
Research Skills: Diffusion Models, Deep Learning, Machine Learning, Computer Vision, Object Detection, Object Tracking, Thermal Vision, Edge Device AI.

Certifications & Academic Coursework

GAN, Deep Learning, and Machine Learning Specializations (DeepLearning.ai); AI courses from HarvardX and IBM.

Peer Review & Professional Service

CVPRW 2025, CVPR AI for Creative Visual Content Generation Editing and Understanding Workshop (CVEU).
AIIPCC 2024, International Conference on Artificial Intelligence, Information Processing and Cloud Computing.

Volunteering & Hobbies

AI4TR: Volunteered since Dec 2023, delivering an AI and Computer Vision educational talk with 1000+ YouTube views and guiding aspiring learners with a structured roadmap and curated learning resources.

Hobbies: I enjoy swimming and playing tennis for physical activity and balance. I have a strong appreciation for classical music, which I express through playing the piano, violin, and viola. I also engage in mentally stimulating games such as chess and have a keen interest in cue sports, including 3-cushion billiards, snooker, and American billiards.

References

Prof. Hatice Güneş	**Assoc. Prof. Gökberk Cinbiş**	**Prof. Sinan Kalkan**	**Assoc. Prof. Emre Akbaş**
University of Cambridge	METU	METU	METU
hg410@cam.ac.uk	gcinbis@ceng.metu.edu.tr	skalkan@metu.edu.tr	emre@ceng.metu.edu.tr
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