ANDREW BOND

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Education

Koc University **2023 –**
PhD Computer Science and Engineering, Focus: Deep Learning for Videos *Advisor: Assoc. Prof. Aykut Erdem CGPA: 3.72/4.0*

Koc University **2019 – 2023**
Bachelors in Computer Engineering, Minor in Mathematics, Track in Artificial Intelligence *CGPA: 3.55/4.0*

Research Experience

Video AI Lab *Research Scientist Intern* **June 2024 – September 2024**
↪ Jui-hsien Wang *Adobe Research*

- Worked on the use of gaussian splatting for video representations.
- Paper accepted to ICCV2025. Can be found on ArXiv at the following link: http://arxiv.org/abs/2501.04782.

Publications

M. H. Ali*, **Andrew Bond***, T. Birdal, D. Ceylan, L. Karacan, E. Erdem, and A. Erdem. Vidstyleode: Disentangled video editing via stylegan and neuralodes. *2023 IEEE/CVF International Conference on Computer Vision (ICCV)*, pages 7489–7500, 2023. URL http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=10376719. In collaboration with Adobe London and Imperial College London.

A. Kara, F. M. Sofian, **Andrew Bond**, and G. G. Şahin. Gecturk: Grammatical error correction and detection dataset for turkish. In *International Joint Conference on Natural Language Processing*, 2023. URL https://arxiv.org/pdf/2309.11346.pdf.

Andrew Bond and Z. Dogan. Exploring the precise dynamics of single-layer gan models: Leveraging multi-feature discriminators for high-dimensional subspace learning. *Advances in Neural Information Processing Systems 37 (NeurIPS 2024)*, 2024. URL https://arxiv.org/pdf/2411.00498.pdf.

Andrew Bond, J.-H. Wang, L. Mai, E. Erdem, and A. Erdem. Gaussianvideo: Efficient video representation via hierarchical gaussian splatting. *arXiv*, 2025. URL https://arxiv.org/abs/2501.04782. Done while an intern at Adobe Research, accepted to ICCV 2025.

H. Çapuk*, **Andrew Bond***, M. B. Kızıl, E. Göçen, E. Erdem, and A. Erdem. Tandit: Tangent-plane diffusion transformer for high-quality 360-degree panorama generation. *arXiv*, 2025. URL https://arxiv.org/abs/2506.21681.

[1]* indicates equal contribution.

Awards

Vehbi Koc Scholars Awarded for outstanding GPA in a semester. **4 times**

Outstanding TA Award Awarded to the top TAs in the university during a semester. **June 2024**

Projects

MiniDL Deep Learning Library Github Page *A functional deep learning and tensor library implemented fully from scratch by myself in pure C++, with cpu, cuda, and Metal support.*

Technical Skills

Programming Languages	Python, C++, CUDA (alone and custom PyTorch kernels), Julia, Matlab, Metal
Languages	English (Native), Turkish (Basic)

Selected Course Work

Computer Science	**Mathematics**
Deep Unsupervised Learning	Real Analysis
Natural Language Processing	Measure Theory + Functional Analysis
Computational Imaging	Topology + Cohomology on Manifolds
Intelligent User Interfaces	Abstract Algebra 1 & 2
Nonconvex Optimization for Machine Learning	Advanced Stochastic Processes
Reinforcement Learning	Operator Theory / Intro to PDEs
Computer Graphics	