

Yusuf Dalva

RESEARCH & TEACHING ASSISTANT · M.SC. CANDIDATE

Department of Computer Engineering, Bilkent University, Ankara, Turkey

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Summary

M.Sc. student working on computer vision problems at Bilkent University. Currently interested in learning tasks leading to strong visual representations using deep neural networks, robustness enhancement of deep models, and generative models. Gives high value to teamwork, believing it is the basis for highly innovative ideas.

Education

Bilkent University

Ankara, Turkey

M.Sc. IN COMPUTER SCIENCE

Sep. 2020 - June 2023 (Expected)

- Thesis topic: Facial image manipulation with convolutional neural networks
- Coursework Completed, CGPA: 4.00/4.00

Bilkent University

Ankara, Turkey

B.Sc. IN COMPUTER SCIENCE

Sep. 2016 - June 2020

- Graduation Project: DRIVision - Mobile-based Driving Assistance Solutions
- CGPA: 3.67/4.00

Publications

PUBLISHED

- Y. Dalva, S. F. Altındış, and A. Dundar, "Vecgan: Image-to-image translation with interpretable latent directions," in *European Conference on Computer Vision*, Springer, 2022, pp. 153–169

UNDER REVIEW

- S. F. Altındış, Y. Dalva, H. Pehlivan, *et al.*, "Benchmarking the robustness of instance segmentation models," in *IEEE Transactions on Neural Networks and Learning Systems (Under Review)*, 2022
- H. Pehlivan, Y. Dalva, and A. Dundar, "Styleres: Transforming the residuals for real image editing with stylegan," in *The IEEE / CVF Computer Vision and Pattern Recognition Conference (In submission)*, 2022
- S. F. Altındış, Y. Dalva, and A. Dundar, "Refining 3d human texture estimation from a single image," in *The IEEE / CVF Computer Vision and Pattern Recognition Conference (In submission)*, 2022

IN PREPARATION

- Y. Dalva, H. Pehlivan, O. I. Hatipoglu, *et al.*, "Face attribute editing with disentangled latent vectors," in *IEEE Transactions on Pattern Analysis and Machine Intelligence (To be submitted)*, 2022

Work Experience

Bilkent University

Ankara, Turkey

RESEARCH ASSISTANT

Sep. 2020 - Present

- Working as a research assistant under the supervision of Aysegül Dundar
- Conducting research focused on Computer Vision related problems
- Engaged in 4 research projects and led 2.

Bilkent University

Ankara, Turkey

TEACHING ASSISTANT

Sep. 2020 - Present

- Has worked as a teaching assistant for 5 semesters
- Responsible for preparation/grading of assignments and provided assistance to undergraduate students in various subjects
- Given tutorials about software tools such as Google Colab and PyTorch
- Courses assisted: Introduction to Machine Learning, Operating Systems, Computer Organization, Algorithms and Programming I

- Employed in the Business Operations Department of product Opsgenie.
- Responsible for translating legacy records to Atlassian database
- Developed triggers related to subscription operations using AWS Lambdas

Projects

MITIGATING GENDER BIAS IN CONTEXTUAL WORD EMBEDDINGS

Ongoing

- Attempting to eliminate the gender bias on contextual word embeddings
- Introducing a novel fine-tuning stage, which attempts to debias the word embeddings produced by BERT model
- Currently at the development stage

DRIVision

May 2020

- Aiming to develop a mobile application that offers driving assistance services
- Project won Data Science Award at Bilkent University Graduation Project fair (CSFair 2020)
- Developed as a group of 5

Achievements, Honors & Awards

2021, 2022	Outstanding Teaching Assistant Based on student votes, elected as one of the three most successful teaching assistants in the Department of Computer Science of Bilkent University
2020	Department Scholarship Awarded a full scholarship by the Department of Computer Science of Bilkent University for M. Sc. studies due to high academic performance
2020	Data Science Award As one of the developers of graduation project DRIVision, won the award for the project that best uses Data Science
2018, 2019	Merit Scholarship Partial scholarship (60%) for B. Sc. studies has been awarded due to outstanding academic performance
2017	Merit Scholarship Partial scholarship (80%) for B. Sc. studies has been awarded due to outstanding academic performance

Conferences & Presentations

European Conference on Computer Vision

Tel Aviv, Israel

POSTER PRESENTATION FOR THE PAPER: VECGAN: IMAGE-TO-IMAGE TRANSLATION WITH INTERPRETABLE LATENT DIRECTIONS

Sep. 2022

- Presented the paper in the event which attracted ~3500 researchers
- Awarded ECCV'22 DEI Travel Grant

Skills

Programming	Python, Java, JavaScript, C++, C, Bash, LaTeX
Data Handling	numpy, pandas, matplotlib, seaborn
Tools & Frameworks	Conda, Docker, PyTorch, Tensorflow, AWS
Languages	Turkish, English