Mert Bülent SARIYILDIZ

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Research Interests

I study machine learning models applied to computer vision applications. My research particularly focuses on developing data-efficient visual models for uni or multi-modal semantic image understanding.

Education

Inria Rhône-Alpes & Université Grenoble Alpes   **Grenoble, France**
Ph.D. in Computer Science   *09/2020 - present*
o Advisors: Karteek Alahari, Diane Larlus

Bilkent University, Computer Engineering Department   **Ankara, Turkey**
M.Sc. in Computer Engineering   *09/2016 - 09/2019*
o Advisors: Ramazan Gökberk Cinbiş, Selim Aksoy
o GPA: 3.71

Anadolu University, Electrical and Electronics Engineering Department   **Eskişehir,Turkey**
B.Sc. in Electrical and Electronics Engineering   *09/2012 - 05/2016*
o GPA: 3.72
o **Ranked 1st in the Engineering Faculty**

Anadolu University, Department of Foreign Languages   **Eskişehir,Turkey**
English Language Program   *09/2011 - 06/2012*

Research and Work Experience

NAVER LABS Europe & Inria Rhône-Alpes   **Grenoble, France**
Doctoral Researcher   *09/2019 - present*
Joined the Computer Vision team at NAVER LABS Europe in 09/2019 and the THOTH team at Inria Rhône-Alpes in 09/2020 as a doctoral researcher. Working under the supervision of Diane Larlus, Karteek Alahari and Yannis Kalantidis.

NAVER LABS Europe   **Grenoble, France**
Intern   *02/2019 - 08/2019*
Studied vision and language models under the supervision of Diane Larlus and Julien Perez.

METU ImageLab   **Ankara,Turkey**
Member   *10/2017 - 09/2019*
A member of the computer vision team, ImageLab, at Middle East Technical University.

Bilkent University   **Ankara,Turkey**
Researcher   *09/2016 - 02/2019*
Studied weakly supervised learning problems and generative models.
Funded by TUBITAK (Scientific and Technological Research Council of Turkey), project title: "Learning Visual Recognition Models with Incomplete Supervision" (No: 116E445).

Visea Innovative Inc.   **Eskişehir, Turkey**
Project Engineer   *09/2015 - 08/2016*
Worked on developing computer vision algorithms, using C++ and C# languages, to address several industrial problems.

Aselsan Inc.   **Ankara, Turkey**
Intern   *07/2015 - 09/2015*
Worked on developing OpenGL based graphical user interface to visualize 360 degrees antenna measurements.

Teaching Experience

o *TA* – Bilkent University, CS102 - Algorithms and Programming - 1
o *TA* – Bilkent University, CS102 - Algorithms and Programming - 2

o *TA* – Bilkent University, CS113 - Introduction to Computing
o *TA* – Bilkent University, CS464 - Image Analysis

Publications

Journal and Conference Papers, and Preprints
o "*Improving the Generalization of Supervised Models*", arXiv:2206.15369, **M. B. Sariyildiz**, Y. Kalantidis, K. Alahari, D. Larlus.
o "*Concept Generalization in Visual Representation Learning*", International Conference on Computer Vision (ICCV) 2021 , **M. B. Sariyildiz**, Y. Kalantidis, D. Larlus, K. Alahari.
o "*Hard Negative Mixing for Contrastive Learning*", Neural Information Processing Systems (NeurIPS) 2020, Y. Kalantidis, **M. B. Sariyildiz**, N. Pion, P. Weinzaepfel, D. Larlus.
o "*Learning Visual Representations with Caption Annotations*", European Conference on Computer Vision (ECCV) 2020, **M. B. Sariyildiz**, J. Perez, D. Larlus.
o "*Key Protected Classification for Collaborative Learning*", Pattern Recognition (SCI), 104, 2020, **M. B. Sariyildiz**, R. G. Cinbis, E. Ayday.
o "*Gradient Matching Generative Networks for Zero-Shot Learning*", Computer Vision & Pattern Recognition (CVPR) 2019 (oral presentation), **M. B. Sariyildiz**, R. G. Cinbis.

Book Translations
o "*Derin Öğrenme*", Buzdağı Yayınevi, 2018, H. Aydın, R. G. Cinbiş, Y. D. Çetin, B. Demirel, S. Kalkan, H. Moğultay, **M. B. Sarıyıldız**, G. Sümbül, F. Yarman Vural, (translation of Deep Learning by Goodfellow et al.)

Talks

o **MIAI Days**, 05/2021, "*Concept generalization in visual representation learning*", PhD students presentations, virtual talk.
o **METU ImageLab**, 01/2021, "*Learning from captioned images, self-supervised learning and generalization*", virtual talk.
o **Element AI**, 01/2021, "*Concept generalization in visual representation learning*", virtual talk.
o **METU ImageLab**, 11/2018, "*Generative Models for Zero-shot Learning*", Ankara, Turkey.
o **Bilkent University**, 11/2017, "*Exploiting Unsupervised Data for Zero-shot Learning*", Ankara, Turkey.

Professional Activities

o Reviewer for IEEE International Conference on Computer Vision and Pattern Recognition (CVPR), 2019, 2021, 2022.
o Reviewer for IEEE International Conference on Computer Vision (ICCV), 2021.
o Reviewer for European Conference on Computer Vision (ECCV), 2020, 2022.
o Reviewer for Neural Information Processing Systems (NeurIPS), 2020.

Honors and Awards

o NAVER LABS Europe the intern day 2019 session-1 winner award.   07/2019
o Research & teaching assistantship, full tuition award by Bilkent University.   09/2016
o Ranked 1st at graduation from Anadolu University, Engineering Faculty.   05/2016
o 6 certificates of high honor by Anadolu University, Electrical and Electronics Engineering.   2012-2016

Research Grants

o *Virtual Eye*, assistive device for visually impaired people. Fundings granted by TUBITAK(Scientific and Technological Research Council of Turkey) 2209B Undergraduate Research Project Support and Savronik, 2016.

Skills

Technical
Python, C/C++, JAVA, MATLAB, PyTorch, TensorFlow, OpenCV, Qt, git

Language

Turkish (native), English (fluent)