

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

Ph.D. in Computer Science

○ Advisors: Karteek Alahari, Diane Larlus

Grenoble, France

09/2020 - present

Bilkent University

M.Sc. in Computer Engineering

○ Advisors: Ramazan Gökberk Cinbiş, Selim Aksoy

○ GPA: 3.71

Ankara, Turkey

09/2016 - 09/2019

Anadolu University

B.Sc. in Electrical and Electronics Engineering

Includes a 1-year English language program

○ GPA: 3.72

○ Ranked 1st in the Engineering Faculty

Eskişehir, Turkey

09/2011 - 05/2016

Research and Work Experience

NAVER LABS Europe & Inria Rhône-Alpes

Doctoral Researcher

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.

Grenoble, France

09/2019 - present

NAVER LABS Europe

Intern

Studied vision and language models under the supervision of Diane Larlus and Julien Perez.

Grenoble, France

02/2019 - 08/2019

METU ImageLab

Member

A member of the computer vision team, ImageLab, at Middle East Technical University.

Ankara, Turkey

10/2017 - 09/2019

Bilkent University

Researcher

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).

Ankara, Turkey

09/2016 - 02/2019

Visea Innovative Inc.

Project Engineer

Worked on developing computer vision algorithms, using C++ and C# languages, to address several industrial problems.

Eskişehir, Turkey

09/2015 - 08/2016

Aselsan Inc.

Intern

Worked on developing OpenGL based graphical user interface to visualize 360 degrees antenna measurements.

Ankara, Turkey

07/2015 - 09/2015

Teaching Experience

- TA – Bilkent University, CS102 - Algorithms and Programming - 1
- TA – Bilkent University, CS102 - Algorithms and Programming - 2
- TA – Bilkent University, CS113 - Introduction to Computing
- TA – Bilkent University, CS464 - Image Analysis

Publications

Journal and Conference Papers, and Preprints

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

Book Translations

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

Talks

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

Professional Activities

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

Honors and Awards

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

Research Grants

- *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)