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International Researcher IDs

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Biography

I was a doctoral researcher in the [LEAR \(now THOTH\) team](#), at INRIA Grenoble, France, from 2010 until 2014, where my advisors were [Jakob Verbeek](#) and [Cordelia Schmid](#), and received a PhD degree from Université de Grenoble. I received an M.A. degree from Boston University, USA, in 2010, where my advisor was [Stan Sclaroff](#). My research interests include machine learning and computer vision, with special interest in data-efficient deep learning via minimal supervision (zero-shot, few-shot, weakly-supervised, self-supervised learning), learning to learn (meta learning), vision and language integration, and large-scale image/video understanding.

Education Information

- I. Doctorate, Université De Grenoble, Bilgisayar Bilimleri, France 2010 - 2014
- II. Postgraduate, Boston University, Computer Science, United States Of America 2008 - 2010
- III. Undergraduate, Ihsan Dogramaci Bilkent University, Faculty Of Engineering, Department Of Computer Engineering, Turkey 2004 - 2008

Dissertations

- I. Doctorate, Fisher Kernel Based Models for Image Classification and Object Localization, Université De Grenoble, Bilgisayar Bilimleri, 2014
- II. Postgraduate, Set Based Modeling Of Objects And Their Context, Boston University, Computer Science, 2010

Research Areas

Computer Sciences

Academic Titles / Tasks

- I. Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Computer Engineering, 2018 - Continues
- II. Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Computer Engineering, 2017 - 2018
- III. Assistant Professor, Ihsan Dogramaci Bilkent University, Faculty Of Engineering, Department Of Computer

Courses

- I. COMPUTER ENGINEERING DESIGN II, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2018 - 2019
- II. Deep Generative Models, Doctorate, 2022 - 2023, 2021 - 2022, 2020 - 2021
- III. INTRODUCTION TO COMPUTER VISION, Undergraduate, 2022 - 2023, 2021 - 2022, 2018 - 2019, 2017 - 2018
- IV. COMPUTER ENGINEERING DESIGN I, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020
- V. ALGORITHMS, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018
- VI. ADVANCED DEEP LEARNING, Postgraduate, 2018 - 2019, 2017 - 2018
- VII. COMPUTER ENGINEERING ORIENTATION, Undergraduate, 2018 - 2019

Advising Theses

- I. Cinbiş R. G., İkizler Cinbiş N., Object detection with minimal supervision, Doctorate, B.DEMİREL(Student), 2023
- II. Cinbiş R. G., PriorBox: Long-tail calibration with priors, Postgraduate, A.DURSUN(Student), 2022
- III. Cinbiş R. G., Closed-form sample probing for training generative models in zero-shot learning, Postgraduate, S.ÇETİN(Student), 2022
- IV. Cinbiş R. G., AKBAŞ E., Streaming multiscale deep equilibrium models, Postgraduate, C.UFUK(Student), 2022
- V. Cinbiş R. G., Duygulu Şahin P., Model robustness in data-scarce regimes and the effect of frequency perturbations, Doctorate, M.KERİM(Student), 2022
- VI. Cinbiş R. G., Prior knowledge guided weakly supervised object detection and semantic segmentation, Postgraduate, F.BALTACI(Student), 2022
- VII. Cinbiş R. G., Improved image generation in normalizing flows through a multi-scale architecture and variational training, Postgraduate, D.SAYIN(Student), 2022
- VIII. Cinbiş R. G., Semi-supervised generative guidance for zero-shot semantic segmentation, Postgraduate, A.CEM(Student), 2022
- IX. Cinbiş R. G., Attention mechanisms for semantic few-shot learning, Postgraduate, O.BUĞRA(Student), 2021
- X. Cinbiş R. G., Scene-preserving person appearance transfer, Postgraduate, F.ÖZGE(Student), 2021
- XI. Cinbiş R. G., Generalized zero-shot object recognition without class-attribute relations, Postgraduate, M.ERSEL(Student), 2021
- XII. Cinbiş R. G., Weakly supervised approaches for image classification in remote sensing and medical image analysis, Postgraduate, B.AYGÜNEŞ(Student), 2020
- XIII. Cinbiş R. G., Style synthesizing conditional generative adversarial networks, Postgraduate, Y.DENİZ(Student), 2020
- XIV. Cinbiş R. G., Aksoy S., Learning efficient visual embedding models under data constraints, Postgraduate, M.BÜLENT(Student), 2019
- XV. Cinbiş R. G., Aksoy S., Image super-resolution using deep feedforward neural networks in spectral domain, Postgraduate, O.AYDIN(Student), 2018
- XVI. Cinbiş R. G., Aksoy S., Fine-grained object recognition in remote sensing imagery, Postgraduate, G.SÜMBÜL(Student), 2018
- XVII. Cinbiş R. G., İkizler Cinbiş N., Attribute based classifiers for image understanding, Postgraduate, B.DEMİREL(Student), 2016

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Cross-lingual few-shot sign language recognition**
Bilge Y. C., İkizler-Cinbis N., CİNBİŞ R. G.

Pattern Recognition, vol.151, 2024 (SCI-Expanded)

- II. **Towards Zero-shot Sign Language Recognition**
Bilge Y. C., CİNBIŞ R. G., İkizler-Cinbis N.
IEEE Transactions on Pattern Analysis and Machine Intelligence, vol.45, no.1, pp.1217-1232, 2023 (SCI-Expanded)
- III. **DeepSide: A Deep Learning Approach for Drug Side Effect Prediction**
Uner O. C., Kuru H. I., CİNBIŞ R. G., Tastan O., Cicek E.
IEEE/ACM Transactions on Computational Biology and Bioinformatics, vol.20, no.1, pp.330-339, 2023 (SCI-Expanded)
- IV. **Semantics-driven attentive few-shot learning over clean and noisy samples**
BARAN O. B., CİNBIŞ R. G.
NEUROCOMPUTING, vol.513, pp.59-69, 2022 (SCI-Expanded)
- V. **Caption generation on scenes with seen and unseen object categories**
Demirel B., CİNBIŞ R. G.
Image and Vision Computing, vol.124, 2022 (SCI-Expanded)
- VI. **How robust are discriminatively trained zero-shot learning models?**
Yucel M. K., Cinbis R. G., DUYGULU ŞAHİN P.
IMAGE AND VISION COMPUTING, vol.119, 2022 (SCI-Expanded)
- VII. **Weakly supervised instance attention for multisource fine-grained object recognition with an application to tree species classification**
Aygunes B., CİNBIŞ R. G., Aksoy S.
ISPRS Journal of Photogrammetry and Remote Sensing, vol.176, pp.262-274, 2021 (SCI-Expanded)
- VIII. **Key protected classification for collaborative learning**
Sariyildiz M. B., Cinbi R. G., Ayday E.
Pattern Recognition, vol.104, 2020 (SCI-Expanded)
- IX. **Multisource Region Attention Network for Fine-Grained Object Recognition in Remote Sensing Imagery**
Sumbul G., Cinbiş R. G., Aksoy S.
IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING, vol.57, pp.4929-4937, 2019 (SCI-Expanded)
- X. **Fine-Grained Object Recognition and Zero-Shot Learning in Remote Sensing Imagery**
Sumbul G., Cinbis R. G., Aksoy S.
IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING, vol.56, no.2, pp.770-779, 2018 (SCI-Expanded)
- XI. **Weakly Supervised Object Localization with Multi-Fold Multiple Instance Learning**
Cinbiş R. G., Verbeek J., Schmid C.
IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE, vol.39, no.1, pp.189-203, 2017 (SCI-Expanded)
- XII. **Approximate Fisher Kernels of Non-iid Image Models for Image Categorization**
CİNBIŞ R. G., Verbeek J., Schmid C.
IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE, vol.38, no.6, pp.1084-1098, 2016 (SCI-Expanded)
- XIII. **Image Mining Using Directional Spatial Constraints**
AKSOY S., CİNBIŞ R. G.
IEEE GEOSCIENCE AND REMOTE SENSING LETTERS, vol.7, no.1, pp.33-37, 2010 (SCI-Expanded)
- XIV. **Fire detection in infrared video using wavelet analysis**
TÖREYİN B. U., CİNBIŞ R. G., Dedeoğlu Y., Çetin E.
Optical Engineering, vol.46, no.6, 2007 (SCI-Expanded)

Articles Published in Other Journals

- I. **Single-Image Super-Resolution Analysis in DCT Spectral Domain**

Books & Book Chapters

I. **Derin Öğrenme**

Yarman Vural F. T., Cinbiş R. G., Kalkan S.
Buzdağı Yayınevi, Ankara, 2018

Refereed Congress / Symposium Publications in Proceedings

I. **Meta-tuning Loss Functions and Data Augmentation for Few-shot Object Detection**

Demirel B., Baran O. B., ÇİNBİŞ R. G.
IEEE/CVF Conference on Computer Vision & Pattern Recognition, Canada, 17 - 21 June 2023

II. **Closed-form Sample Probing for Learning Generative Models in Zero-shot Learning**

ÇETİN S., Baran O. B., ÇİNBİŞ R. G.
International Conference on Learning Representations, Çevrimiçi, United States Of America, 25 April 2022, vol.1

III. **A Recurrent and Meta-learned Model of Weakly Supervised Object Localization**

Sariyildiz M. B., Sumbul G., ÇİNBİŞ R. G.
6th International Symposium on Multidisciplinary Studies and Innovative Technologies, ISMSIT 2022, Ankara, Turkey, 20 - 22 October 2022, pp.747-752

IV. **MaskSplit: Self-supervised Meta-learning for Few-shot Semantic Segmentation**

Amac M. S., Sencan A., BARAN O. B., İkizler-Cinbis N., ÇİNBİŞ R. G.
22nd IEEE/CVF Winter Conference on Applications of Computer Vision, WACV 2022, Hawaii, United States Of America, 4 - 08 January 2022, pp.428-438

V. **Streaming Multiscale Deep Equilibrium Models**

ERTENLİ C. U., AKBAŞ E., ÇİNBİŞ R. G.
17th European Conference on Computer Vision, ECCV 2022, Tel-Aviv-Yafo, Israel, 23 - 27 October 2022, vol.13671 LNCS, pp.189-205

VI. **Red Carpet to Fight Club: Partially-supervised Domain Transfer for Face Recognition in Violent Videos**

Bilge Y. C., Yücel M. K., ÇİNBİŞ R. G., İKİZLER ÇİNBİŞ N., DUYGULU ŞAHİN P.
IEEE Winter Conference on Applications of Computer Vision (WACV), ELECTR NETWORK, 5 - 09 January 2021, pp.3357-3368

VII. **A Deep Dive into Adversarial Robustness in Zero-Shot Learning**

Yücel M. K., ÇİNBİŞ R. G., DUYGULU ŞAHİN P.
ECCV 2020, Workshop on Adversarial Robustness in the Real World, Glasgow, United Kingdom, 23 August 2020

VIII. **Graph convolutional networks for region of interest classification in breast histopathology**

Aygüneş B., AKSOY S., ÇİNBİŞ R. G., KÖSEMEHMETOĞLU K., Önder S., Üner A.
SPIE Medical Imaging, Texas, United States Of America, 15 February 2020

IX. **Learning Visually Consistent Label Embeddings for Zero-Shot Learning**

Berkan D., ÇİNBİŞ R. G., İKİZLER ÇİNBİŞ N.
2019 IEEE International Conference on Image Processing (ICIP), Taipei, Taiwan, 22 - 25 September 2019

X. **Zero-Shot Sign Language Recognition: Can Textual Data Uncover Sign Languages?**

Bilge Y. C., İKİZLER ÇİNBİŞ N., ÇİNBİŞ R. G.
British Machine Vision Conference, 9 - 12 September 2019

XI. **Image Captioning with Unseen Objects**

Berkan D., ÇİNBİŞ R. G., İKİZLER ÇİNBİŞ N.

British Machine Vision Conference, 9 - 12 September 2019

- XII. **Gradient Matching Generative Networks for Zero-Shot Learning**
Sariyildiz M. B., CİNBIŞ R. G.
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), California, United States Of America, 16 - 20 June 2019, pp.2163-2173
- XIII. **Cross-task weakly supervised learning from instructional videos**
Zhukov D., Alayrac J., CİNBIŞ R. G., Fouhey D., Laptev I., Sivic J.
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), California, United States Of America, 16 - 20 June 2019, pp.3532-3540
- XIV. **WEAKLY SUPERVISED DEEP CONVOLUTIONAL NETWORKS FOR FINE-GRAINED OBJECT RECOGNITION IN MULTISPECTRAL IMAGES**
Aygunes B., AKSOY S., CİNBIŞ R. G.
IEEE International Geoscience and Remote Sensing Symposium (IGARSS), Yokohama, Japan, 28 July - 02 August 2019, pp.1478-1481
- XV. **Zero-Shot Object Detection by Hybrid Region Embedding**
Berkan D., Cinbiş R. G., İkizler Cinbiş N.
British Machine Vision Conference, Newcastle-Upon-Tyne, United Kingdom, 3 - 07 September 2018
- XVI. **Fine-grained object recognition and zero-shot learning in multispectral imagery**
Sumbul G., CİNBIŞ R. G., AKSOY S.
2018 26th Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- XVII. **Attributes2Classname: A discriminative model for attribute-based unsupervised zero-shot learning**
Demirel B., Cinbiş R. G., İkizler Cinbiş N.
16th IEEE International Conference on Computer Vision (ICCV), Venice, Italy, 22 - 29 October 2017, pp.1241-1250
- XVIII. **Visual Saliency Estimation via Attribute Based Classifiers and Conditional Random Field**
Demirel B., CİNBIŞ R. G., İKİZLER CİNBIŞ N.
2016 24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016
- XIX. **Hyperspectral target detection - An experimental study**
GUNYEL B., CİNBIŞ R. G., Ture S., Gurbuz A. C.
2015 23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015
- XX. **Multi-fold MIL Training for Weakly Supervised Object Localization**
Cinbiş R. G., Verbeek J., Schmid C.
27th IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Ohio, United States Of America, 23 - 28 June 2014, pp.2409-2416
- XXI. **Segmentation Driven Object Detection with Fisher Vectors**
Cinbiş R. G., Verbeek J., Schmid C.
IEEE International Conference on Computer Vision (ICCV), Sydney, Australia, 1 - 08 December 2013, pp.2968-2975
- XXII. **Image categorization using Fisher kernels of non-iid image models**
Cinbiş R. G., Verbeek J., Schmid C.
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Rhode Island, United States Of America, 16 - 21 June 2012, pp.2184-2191
- XXIII. **Contextual Object Detection Using Set-Based Classification**
CİNBIŞ R. G., Sclaroff S.
12th European Conference on Computer Vision (ECCV), Florence, Italy, 7 - 13 October 2012, vol.7577, pp.43-57
- XXIV. **Unsupervised Metric Learning for Face Identification in TV Video**
Cinbiş R. G., Verbeek J., Schmid C.
IEEE International Conference on Computer Vision (ICCV), Barcelona, Spain, 6 - 13 November 2011, pp.1559-1566
- XXV. **Learning Actions From the Web**
İkizler Cinbiş N., Cinbiş R. G., Sclaroff S.

12th IEEE International Conference on Computer Vision, Kyoto, Japan, 29 September - 02 October 2009, pp.995-1002

XXVI. Recognizing actions from still images

İKİZLER CİNBIŞ N., CİNBIŞ R. G., PEHLİVAN S., DUYGULU ŞAHİN P.

2008 19th International Conference on Pattern Recognition, Tampa, FL, USA, 8 - 11 December 2008

XXVII. Human action recognition with line and flow histograms

İKİZLER CİNBIŞ N., CİNBIŞ R. G., DUYGULU ŞAHİN P.

2008 19th International Conference on Pattern Recognition, Tampa, FL, USA, 8 - 11 December 2008

XXVIII. Automatic Mapping of Linearwoody Vegetation Features in Agricultural Landscapes

AKSOY S., AKÇAY H. G., CİNBIŞ R. G., Wassenaar T.

IGARSS 2008 - 2008 IEEE International Geoscience and Remote Sensing Symposium, Boston, MA, USA, 7 - 11 July 2008

XXIX. Relative Position-Based Spatial Relationships using Mathematical Morphology

CİNBIŞ R. G., AKSOY S.

2007 IEEE International Conference on Image Processing, San Antonio, TX, USA, 16 September - 19 October 2007

XXX. Morphological Modeling of Position-Based Spatial Relationships

CİNBIŞ R. G., AKSOY S.

2007 IEEE 15th Signal Processing and Communications Applications, Eskisehir, Turkey, 11 - 13 June 2007

Supported Projects

- I. ŞAHİN E., ANKARALI M. M., KALKAN S., SARANLI U., YAZICIOĞLU Y., CİNBIŞ R. G., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, Robotik Teknolojileri Araştırma, Geliştirme ve Eğitim Merkezi (ROMER), 2019 - Continues
- II. Cinbiş R. G., Çetin S., H2020 Project, SnapEarth - Fostering Earth Observation market uptake thanks to natural and holistic access to added value data generated through cutting-edge Artificial Intelligence technologies, 2019 - 2022
- III. CİNBIŞ R. G., TUBITAK Project, Görsel Öge Tanıma Modellerinin Eksik Gözetimli Öğrenimi, 2017 - 2020
- IV. CİNBIŞ R. G., DEMİREL B., Project Supported by Higher Education Institutions, Uzaktan Algılamalı Görüntülerde Detaylı Nesne Tanıma için Çok Kaynaklı Derin Öğrenme, 2018 - 2019

Scientific Refereeing

- I. IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE, SCI Journal, January 2022
- II. INTERNATIONAL JOURNAL OF COMPUTER VISION, SCI Journal, October 2019
- III. IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE, SCI Journal, September 2019
- IV. INTERNATIONAL JOURNAL OF COMPUTER VISION, SCI Journal, August 2019
- V. INTERNATIONAL JOURNAL OF COMPUTER VISION, SCI Journal, May 2019
- VI. IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE, SCI Journal, May 2019
- VII. INTERNATIONAL JOURNAL OF COMPUTER VISION, SCI Journal, March 2019
- VIII. IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE, SCI Journal, January 2019
- IX. IEEE TRANSACTIONS ON IMAGE PROCESSING, SCI Journal, September 2018
- X. SIGNAL IMAGE AND VIDEO PROCESSING, Journal Indexed in SCI-E, July 2018
- XI. IEEE SIGNAL PROCESSING LETTERS, Journal Indexed in SCI-E, May 2018
- XII. INTERNATIONAL JOURNAL OF COMPUTER VISION, SCI Journal, May 2018
- XIII. IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE, SCI Journal, May 2018
- XIV. PATTERN RECOGNITION, SCI Journal, April 2018
- XV. TUBITAK Project, 1511 - TUBITAK Priority Fields Research Technology Development and Innovation PDP, Orta Doğu Teknik Üniversitesi, Turkey, March 2018

XVI. IEEE TRANSACTIONS ON IMAGE PROCESSING, SCI Journal, February 2018

XVII. COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE, Journal Indexed in SCI-E, January 2018

Tasks In Event Organizations

- I. Kalkan S., Akbaş E., Cinbiş R. G., Nesne Tespiti Probleminde Güncel İlerlemeler, Workshop Organization, Turkey, Kasım 2022

Mobility Activity

- I. Research Scholarship Program, Guest Researcher, Institut de recherche en informatique et en automatique (INRIA), France, 2018 - 2018

Metrics

Publication: 47

Citation (WoS): 709

Citation (Scopus): 1468

H-Index (WoS): 13

H-Index (Scopus): 16

Congress and Symposium Activities

- I. BYORK, Panelists, Ankara, Turkey, 2019

Invited Talks

- I. Learning to Recognize, Localize and Caption with Limited Supervision, Seminar, Google DeepMind, United Kingdom, September 2019
- II. Learning to Recognize and Localize Without Training Examples, Seminar, INRIA, France, July 2018
- III. Deep Learning of Object Recognition Models Without Training Examples, Seminar, Sabancı Üniversitesi, Turkey, June 2018
- IV. Zero-shot Learning and Fine-grained Classification, Seminar, Orta Doğu Teknik Üniversitesi, Turkey, March 2018

Scholarships

- I. French-Turkish Research Fellowship, Other Government Agencies, 2018 - 2018

Coaching Duties

Refereeing Duties

Non Academic Experience

I. MilSOFT Yazilim Teknolojileri A.S.