

Oriol Ramos Terrades
Department of Computer Science
Email: Oriol.Ramos@uab.cat



Research outputs

LLM-Driven Medical Document Analysis: Enhancing Trustworthy Pathology and Differential Diagnosis

Kang, L., Fu, X., Terrades, O. R., Vazquez-Corral, J., Valveny, E. & Karatzas, D., 17 Sept 2026, *LLM-Driven Medical Document Analysis: Enhancing Trustworthy Pathology and Differential Diagnosis*. Yin, X.-C., Karatzas, D. & Lopresti, D. (eds.). Vol. 16025. p. 613-628 16 p. (Lecture Notes in Computer Science; vol. 16025 LNCS).

From traditional teaching to flipped classroom: Impact on learning in engineering degrees

Hernandez Sabate, A., Albarracín, L., Ramos Terrades, O., Gil Resina, D., Sanchez Ramos, C. & Marti Godia, E., 19 Jun 2024, In: *Journal of Technology and Science Education*. 14, 3, p. 798-814 17 p.

Fetch-A-Set: A Large-Scale OCR-Free Benchmark for Historical Document Retrieval

Molina, A., Terrades, O. R. & Lladós Canet, J., 11 Jun 2024.

Synthetic dataset of ID and Travel Documents

Boned, C., Talarmain, M., Ghanmi, N., Chiron, G., Biswas, S., Awal, A. M. & Ramos Terrades, O., 2024, In: *Scientific data*. 11

VLCDoC: Vision-Language contrastive pre-training model for cross-Modal document classification

Bakkali, S., Ming, Z., Coustaty, M., Rusiñol, M. & Ramos Terrades, O., Jul 2023, In: *Pattern Recognition*. 139, 11 p., 109419.

A Flexible Outlier Detector Based on a Topology Given by Graph Communities

Terrades, O. R., Berenguel, A. & Gil, D., 28 Aug 2022, In: *Big Data Research*. 29, 10 p., 100332.

Table detection in business document images by message passing networks

Riba, P., Goldmann, L., Terrades, O. R., Rusticus, D., Fornés, A. & Lladós, J., 1 Jul 2022, In: *Pattern Recognition*. 127, 108641.

A Generic Image Retrieval Method for Date Estimation of Historical Document Collections

Molina, A., Gomez, L., Ramos Terrades, O. & Lladós, J., 2022, 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 13237 LNCS)

Discriminative Neural Variational Model for Unbalanced Classification Tasks in Knowledge Graph

Riera, C. B. & Ramos Terrades, O., 2022, Institute of Electrical and Electronics Engineers Inc. 6 p. (Proceedings - International Conference on Pattern Recognition; vol. 2022-August)

The Barcelona historical marriage database and the Baix Llobregat demographic database : from algorithms for handwriting recognition to individual-level demographic and socioeconomic data

Ramos Terrades, O., Lladós, J., Cabré, A., Fornés, A. & Chen, J., 2022, In: *Historical life course studies*. 12, 5, p. 99-132 34 p.

Activitats d'aula inversa en l'àmbit de l'enginyeria. Experiència en la docència de bases de dades

Ramos Terrades, O., Gil Resina, D., Marti Godia, E., Sánchez-Riera, C., Hernandez Sabate, A., Albarracín, L. & Parraga, C. A., Apr 2021, *Experiències docents innovadores a la UAB*. p. 111-125 15 p.

A Self-supervised Inverse Graphics Approach for Sketch Parametrization

Suso, A., Riba, P., Terrades, O. R. & Lladós, J., 2021, Springer Science and Business Media Deutschland GmbH. 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 12916 LNCS)

Date Estimation in the Wild of Scanned Historical Photos: An Image Retrieval Approach

Molina, A., Riba, P., Gomez, L., Ramos-Terrades, O. & Lladós, J., 2021, Springer Science and Business Media Deutschland GmbH. 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 12822 LNCS)

Experiències docents innovadores a la UAB

Albarracín Gordo, L., Badia i Perpinyà, A., Balasch Alemany, J. C., Ballvé i Martróm, M., Espinós, J. J., Espuny, M. J., Estadella Tarriel, J., Gil, D., Gisbert Traveria, M., Hernandez-Sabaté, A., Hernández Martín, J., Macarulla Sanz, E., Medina Mallen, M. D. C., Parraga, C. A., Ramos Terrades, O., Roher Armentia, N., Sánchez Ramos, C., Solanas i Garcia, M., Taberero, C. & Udina i Bonet, E. & 2 others, Vallès Muñío, D. & Velo Fabregat, E., 2021, 2021 ed. Bellaterra .

Learning to Rank Words: Optimizing Ranking Metrics for Word Spotting

Riba, P., Molina, A., Gomez, L., Ramos-Terrades, O. & Lladós, J., 2021, Springer Science and Business Media Deutschland GmbH. 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 12822 LNCS)

Topological Radiomics (TOPiomics): Early Detection of Genetic Abnormalities in Cancer Treatment Evolution

Gil, D., Ramos, O. & Perez, R., 2021, *Trends in Mathematics*. Springer Science and Business Media Deutschland GmbH, p. 89-93 5 p. (Trends in Mathematics; vol. 15).

Knowledge graph based methods for record linkage

Gautam, B., Ramos Terrades, O., Pujadas-Mora, J. M. & Valls, M., Aug 2020, In: Pattern Recognition Letters. 136, p. 127-133 7 p.

Recurrent comparator with attention models to detect counterfeit documents

Berenguel Centeno, A., Ramos Terrades, O., Lladós Canet, J. & Canero Morales, C., Sept 2019, 6 p. (Proceedings of the International Conference on Document Analysis and Recognition, ICDAR)

Table detection in invoice documents by graph neural networks

Riba, P., Dutta, A., Goldmann, L., Fornes, A., Ramos, O. & Lladós, J., Sept 2019, 6 p. (Proceedings of the International Conference on Document Analysis and Recognition, ICDAR)

DSD: document sparse-based denoising algorithm

Do, T. H., Ramos Terrades, O. & Tabbone, S., 5 Feb 2019, In: Pattern Analysis and Applications. 22, p. 177-186

A probabilistic framework for handwritten text line segmentation

Cruz, F. & Terrades, O. R., 7 May 2018.

E-Counterfeit: A Mobile-Server Platform for Document Counterfeit Detection

Centeno, A. B., Terrades, O. R., Canet, J. L. I. & Morales, C. C., 25 Jan 2018, 6 p. (Proceedings of the International Conference on Document Analysis and Recognition, ICDAR; vol. 9)

Learning Structural Loss Parameters on Graph Embedding Applied on Symbolic Graphs

Jarraya, H., Terrades, O. R. & Lladós, J., 25 Jan 2018, 2 p. (Proceedings of the International Conference on Document Analysis and Recognition, ICDAR; vol. 2)

MA 20.08 Classification of Confocal Endomicroscopy Patterns for Diagnosis of Lung Cancer

Ramos Terrades, O. & Gil Resina, D., Nov 2017, In: Journal of Thoracic Oncology. 12, 11, S1889.

Classification of Confocal Endomicroscopy Patterns for Diagnosis of Lung Cancer

Gil, D., Ramos-Terrades, O., Mincholé, E., Sanchez, C., de Frutos, N. C., Diez-Ferrer, M., Ortiz, R. M. & Rosell, A., 2017, 9 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 10550 LNCS)

Evaluation of texture descriptors for validation of counterfeit documents

Berenguel, A., Terrades, O. R., Lladós, J. & Canero, C., 2017, 6 p.

Graph embedding through probabilistic graphical model applied to symbolic graphs

Jarraya, H., Terrades, O. R. & Lladós, J., 2017, 8 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 10255 LNCS)

Ontology-based understanding of architectural drawings

De las Heras, L. P., Terrades, O. R. & Lladós, J., 2017, 11 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 9657 LNCS)

Spotting symbol over graphical documents via sparsity in visual vocabulary

Ha, D. T., Tabbone, S. & Terrades, O. R., 2017, 12 p. (Communications in Computer and Information Science; vol. 709)

Sparse representation over learned dictionary for symbol recognition

Do, T. H., Tabbone, S. & Ramos Terrades, O., 1 Aug 2016, In: Signal Processing. 125, p. 36-47

Banknote Counterfeit Detection through Background Texture Printing Analysis

Berenguel, A., Terrades, O. R., Lladós, J. & Canero, C., 10 Jun 2016, Institute of Electrical and Electronics Engineers Inc. 6 p. (Proceedings - 12th IAPR International Workshop on Document Analysis Systems, DAS 2016)

La visió per computador com a eina per a la interpretació automàtica de fonts documentals

Fornés Bisquerra, A., Lladós Canet, J., Ramos Terrades, O. & Rusiñol, M., 2016, In: Lligall. 39, p. 18-44 26 p.

A Conditional Random Field model for font forgery detection

Bertrand, R., Terrades, O. R., Gomez-Kramer, P., Franco, P. & Ogier, J. M., 20 Nov 2015, 5 p. (Proceedings of the International Conference on Document Analysis and Recognition, ICDAR; vol. 2015-November)

Attributed Graph Grammar for floor plan analysis

De Las Heras, L. P., Terrades, O. R. & Lladós, J., 20 Nov 2015, 5 p. (Proceedings of the International Conference on Document Analysis and Recognition, ICDAR; vol. 2015-November)

Use case visual Bag-of-Words techniques for camera based identity document classification

De Las Heras, L. P., Terrades, O. R., Lladós, J., Fernandez-Mota, D. & Canero, C., 20 Nov 2015, 5 p. (Proceedings of the International Conference on Document Analysis and Recognition, ICDAR; vol. 2015-November)

Structure detection and segmentation of documents using 2D stochastic context-free grammars

Álvaro, F., Cruz, F., Sánchez, J. A., Ramos Terrades, O. & Benedí, J. M., 20 Feb 2015, In: Neurocomputing. 150, Part A, p. 147-154

CVC-FP and SGT: a new database for structural floor plan analysis and its groundtruthing tool

de las Heras, L. P., Terrades, O. R., Robles, S. & Sánchez, G., 1 Jan 2015, In: International Journal on Document Analysis and Recognition. 18, 1, p. 15-30

EM-based layout analysis method for structured documents

Cruz, F. & Terrades, O. R., 4 Dec 2014, Institute of Electrical and Electronics Engineers Inc. 6 p. (Proceedings - International Conference on Pattern Recognition)

Flowchart recognition for non-textual information retrieval in patent search

Rusiñol, M., de las Heras, L. P. & Terrades, O. R., 1 Oct 2014, In: *Information Retrieval Journal*. 17, 5-6, p. 545-562

An overview of symbol recognition

Tabbone, S. & Terrades, O. R., 1 Jan 2014, *Handbook of Document Image Processing and Recognition*. p. 523-551 28 p.

Exploring the impact of inter-query variability on the performance of retrieval systems

Brughi, F., Gil, D., Badiella, L., Casabella, E. J. & Terrades, O. R., 2014, 8 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 8814)

Spotting symbol using sparsity over learned dictionary of local descriptors

Do, T. H., Tabbone, S. & Terrades, O. R., 2014, 5 p. (Proceedings - 11th IAPR International Workshop on Document Analysis Systems, DAS 2014)

Interactive Document Retrieval and Classification

Ramos, O., Mas, J. & Rossinyol, M., 21 Oct 2013, In: *Intelligent Systems Reference Library*. 48, p. 17-30

A system based on intrinsic features for fraudulent document detection

Bertrand, R., Gomez-Kramer, P., Ramos Terrades, O., Franco, P. & Ogier, J.-M., 2013

Document noise removal using sparse representations over learned dictionary

Do, T.-H., Tabbone, S. & Ramos Terrades, O., 2013, 8 p.

Handwritten line detection via an em algorithm

Cruz, F. & Terrades, O. R., 2013, 5 p. (Proceedings of the International Conference on Document Analysis and Recognition, ICDAR)

New approach for symbol recognition combining shape context of interest points with sparse representation

Do, T. H., Tabbone, S. & Ramos Terrades, O., 2013

CVC-UAB's participation in the flowchart recognition task of CLEF-IP 2012

Rusiñol, M., De Las Heras, L. P., Mas, J., Terrades, O. R., Karatzas, D., Dutta, A., Sánchez, G. & Lladós, J., 2012, (CEUR Workshop Proceedings)

Document segmentation using Relative Location Features

Cruz, F. & Ramos Terrades, O., 2012

Text/graphic separation using a sparse representation with multi-learned dictionaries

Do, T.-H., Tabbone, S. & Ramos-Terrades, O., 2012, 4 p.

A protocol to characterize the descriptive power and the complementarity of shape descriptors

Visani, M., Terrades, O. R. & Tabbone, S., Mar 2011, In: *International Journal on Document Analysis and Recognition*. 14, p. 87-100 14 p.

Interactive-predictive detection of handwritten text blocks

Ramos Terrades, O., Serrano, N., Gordo, A., Valveny, E. & Juan-Ciscar, A., 1 Jan 2010, *Document Recognition and Retrieval XVII*. 1 ed. Bellingham (US), Vol. 7534. p. - (Proceedings of SPIE).

Interactive layout analysis and transcription systems for historic handwritten documents

Ramos-Terrades, O., Toselli, A. H., Serrano, N., Vidal, E., Juan, A. & Romero, V., 2010, 4 p.

The GIDOC Prototype

Serrano, N., Tarazon, L., Perez, D., Ramos Terrades, O. & Juan, A., 2010, In: Pattern Recognition in Information Systems. p. 82-89 8 p.

Word-Wise Thai and Roman Script Identification

Chanda, S., Pal, U. & Terrades, O. R., 1 Aug 2009, In: ACM Transactions on Asian and Low-Resource Language Information Processing. 8, 3, 21 p., 11.

Confidence measures for error correction in interactive transcription handwritten text

Tarazón, L., Pérez, D., Serrano, N., Alabau, V., Ramos Terrades, O., Sanchis, A. & Juan, A., 2009, 8 p.

The GERMANA database

Pérez, D., Tarazón, L., Serrano, N., Castro, F., Ramos Terrades, O. & Juan, A., 2009, 5 p.

Feature selection combining genetic algorithm and adaboost classifiers

Chouaib, H., Ramos Terrades, O., Tabbone, S., Cloppet, F. & Vincent, N., 2008, 4 p.

Histogram of radon transform. A useful descriptor for shape retrieval

Tabbone, S., Terrades, O. R. & Barrat, S., 2008, 4 p.

Symbol descriptor based on shape context and vector model of information retrieval

Nguyen, T.-O., Tabbone, S. & Terrades, O. R., 2008, 7 p.

SVM based scheme for Thai and English script identification

Chanda, S., Terrades, O. R. & Pal, U., 2007, 5 p. (Proceedings of the International Conference on Document Analysis and Recognition, ICDAR; vol. 1)

A New Use of The Ridgelets Transform for Describing Linear Singularities in Images

Ramos Terrades, O. & Valveny, E., 1 Jan 2006, In: Pattern Recognition Letters. 27, 6, p. 587-596

Combination of shape descriptors using an adaptation of boosting

Ramos Terrades, O., Tabbone, S. & Valveny, E., 2006, 4 p.

Indexing technical symbols using ridgelets transform

Terrades, O. R. & Valveny, E., 1 Dec 2004, In: Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics). 3088, p. 176-187

Indexing Technical Symbols Using Ridgelets Transform.

Ramos, O. & Valveny, E., 1 Jan 2004, *Graphics Recognition: Recent advances and perspectives. Selected papers from 5th International Workshop on Graphics Recognition (GREC'03)*. 1 ed. Berlín (DE), Vol. 3088. p. 176-187 11 p. (Lecture notes in computer science).

A system for virtual prototyping of architectural projects

Llados Canet, J., Marti Godia, E., Valveny Llobet, E., Sanchez Albaladejo, G., Ramos Terrades, O. & Llados Canet, J., 1 Jan 2003, *Proceedings of V IAPR International Workshop on Grphics recognition (GREC'03)*. 1 ed. Barcelona (ES), Vol. 1 . p. 65-74 9 p.

Line detection using ridgelets transform for graphic symbol representation

Ramos Terrades, O. & Valveny Llobet, E., 1 Jan 2003, *Pattern Recognition and Image Analysis: first Iberian conference. IbPRIA 2003*. 1 ed. Nova York (US), Vol. 2652. p. - (Lecture notes in computer science).

Radon transform for linear symbol representation

Terrades, O. R. & Valveny, E., 2003, 5 p.

Activities

Evaluación automática de prácticas Moodle para aprendizaje autónomo en ingenierías

Sánchez, C. (Speaker), Ramos Terrades, O. (Speaker), Márquez, P. (Speaker), Marti Godia, E. (Speaker), Rocarias, J. (Speaker) & Gil Resina, D. (Speaker)
2 Jul 2014

Interactive-predictive detection of handwritten text blocks

Ramos Terrades, O. (Speaker), N., S. (Speaker), Albert, G. (Speaker), Valveny Llobet, E. (Speaker) & Alfons, J.-C. (Speaker)
19 Jan 2010

A Review of Shape Descriptors for Document Analysis

Ramos Terrades, O. (Speaker), Salvatore, T. (Speaker) & Valveny Llobet, E. (Speaker)
22 Sept 2007

Performance characterization of shape descriptors for symbol representation

Valveny Llobet, E. (Speaker), S., T. (Speaker), Ramos Terrades, O. (Speaker) & E., P. (Speaker)
20 Sept 2007

Optimal Linear Combination for Two-Class Classifiers

Ramos Terrades, O. (Speaker), S., T. (Speaker) & Valveny Llobet, E. (Speaker)
2 Jan 2007

Combination of Shape descriptors using an adaption of boosting

Ramos Terrades, O. (Speaker), Valveny, E. (Speaker) & Tabbone, S. A. (Speaker)
20 Aug 2006

Local nom features based on ridgelets transform

Ramos Terrades, O. (Speaker) & Valveny Llobet, E. (Speaker)
29 Aug 2005

Numeral recognition for quality control of surgical sachets

Valveny Llobet, E. (Speaker) & Ramos Terrades, O. (Speaker)
4 Aug 2003

Radon transform for lineal symbol representation

Valveny Llobet, E. (Speaker) & Ramos Terrades, O. (Speaker)
4 Aug 2003

Awards

SUKIDI: Semantic Understanding and Knowledge Integration for Document Intelligence

Ramos Terrades, O. (Co-Investigador/a Principal), Maneva, E. N. (Investigator), Vilariño Freire, F. L. (Investigator), Fornes Bisquerra, A. (Investigator), Casas Roma, J. (Investigator) & Lladós Canet, J. (Principal Investigator)
Spanish State Research Agency: €192,000.00
1/09/25 → 31/08/28