

Anderson Rocha

Associate Professor and Researcher

BSc., MSc., e PhD. in Computer Science

Microsoft Research Faculty Fellow

Tan Chin Tuan Faculty Fellow

Affiliate Member – Brazilian Academy of Sciences (ABC)

Affiliate Member – Brazilian Academy of Forensics Sciences (ABCF)

Elected Member – IEEE Information Forensics and Security Technical Committee (IFS-TC)

CNPq Researcher Level PQ-2

IEEE Senior Member

Position

University	Associate Professor (MS-5.1), University of Campinas (Unicamp), Full-Time Dedication
Admission	22 December, 2009

Background

“Livres-Docência”¹	University of Campinas, Campinas, SP, Brazil (2014)
Postdoc	Univ. of Campinas, Campinas, SP, Brazil (2009-2009)
PhD.	Univ. of Campinas (Unicamp), Campinas, SP, Brazil (2006–2009) and part at the Univ. of Colorado at Colorado Springs (UCCS), Colorado Springs, CO, USA (2008)
MSc.	Univ. of Campinas, Campinas, SP, Brazil (2004-2005)
College	Federal Univ. of Lavras, Lavras, MG, Brazil (2000-2003)

Visiting Positions

NTU	Nanyang Technological University, Singapore, (Sabbatical, 2017)
Notre Dame	University of Notre Dame, Notre Dame, IN, U.S. (Sabbatical, 2016)
Notre Dame	University of Notre Dame, Notre Dame, IN, U.S. (June/July, 2015)
NTU	Nanyang Technological University, Singapore, (June/July, 2014)
Harvard	Harvard University, Cambridge, MA, U.S. (June/July, 2013)
UCCS	University of Colorado at Colorado Springs, Colorado Springs, CO, U.S. (June/July, 2011)

Research Interests and Profile

- **Research Interests:** Reasoning for Complex Data, Digital Forensics, and Machine Intelligence
- **Research Profile @ Google Scholar:** <http://tinyurl.com/bnzyjx9>
- **Lattes** <http://lattes.cnpq.br/1521815731111261>
- **ORCID ID** <http://orcid.org/0000-0002-4236-8212>

Academic Awards and Distinctions

1. **Tan Chin Tuan Fellowship.** *Tan Chin Tuan Foundation, 2016.* Program supported by the TCT Foundation to foster collaborations between Singaporean researchers and renowned scientists overseas.
2. **Google Research Awards for Latin America.** *Google Inc., 2016.* Cutting-edge research in Computer Science.
3. **Unicamp Inventor Award.** *Inova Unicamp, 2016.* Most distinguished 2015 scientific research work regarding technology protection and transferring.
4. **IEEE Information Forensics and Security Technical Committee.** *IEEE IFS-TC, EUA, 2016.* Member Elected for the 2016-2018 term (Second term).
5. **CMBM Editor’s Choice 2015.** *Elsevier Computers in Biology and Medicine.* for the paper *Mid-level Image Representations for Real-time Heart View Plane Classification of Echocardiograms.*
6. **IEEE Senior Member.** *IEEE, 2015.* IEEE Senior Membership is an honor bestowed only to those who have made significant contributions to the profession.

7. **Academic Excellence Award.** *Institute of Computing, University of Campinas*, 2013. Academic recognition award promoted by the Institute of Computing (Unicamp), which aims at selecting professors who have significantly contributed to their field.
8. **MediaEval 2014.** Second place – Violence Scene Detection MediaEval for Online Videos.
9. **CNPq distinguished Researcher PQ-2** – *National Counsel of Technological and Scientific Development*, 2012. Brazilian recognition for top-tier researchers.
10. **Microsoft Research Faculty Fellow.** *Microsoft Research Faculty Fellow*. This award is an academic recognition award promoted by Microsoft Research, which aims at selecting young researchers who are advancing computing research in novel directions with the potential for high impact on the state of the art, and who demonstrate the likelihood of becoming thought leaders in the field.
11. **Intl. Conference on Biometrics.** First place – ICB 2013 Competition on face recognition in mobile environment using the MOBIO database.
12. **Brazilian Academy of Forensics Sciences.** *Brazilian Academy of Forensics Sciences*. Member as of 2013.
13. **Brazilian Academy of Sciences.** *Brazilian Academy of Sciences*. Member Elected for the 2012-2017 term.
14. **IEEE Information Forensics and Security Technical Committee.** *IEEE IFS-TC, EUA, 2011*. Member Elected for the 2012-2015 term.
15. **Best Ph.D. Thesis.** *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), Brasília, Brazil*. Best Brazilian Ph.D. Thesis in Computer Science for the period of 2009-2010.
16. **Best Ph.D. Thesis.** *Brazilian Conference on Graphics, Patterns and Images, 2010, Gramado, Brazil*.
17. **Best Ph.D. Thesis.** *Institute of Computing, University of Campinas, 2010, Campinas, Brazil*.

Awards and Distinctions (Students)

1. **Google Research Awards for Latin America.** *Google Inc., 2016*. Cutting-edge research in Computer Science. **Project:** Automated Data-Driven Screening of Diabetic Retinopathy. Student: José Ramon Trindade Pires.
2. **MSc. Dissertation Award – Top 10.** *Multiple Parenting Relationships in Image Phylogeny*. Student: Alberto Arruda de Oliveira. *Brazilian Computing Society (SBC), 2016*.
3. **PhD. Thesis Award – 2nd place.** *Sleuthing for Exposing Fauxtography and Uncovering Composition Telltales in Digital Images*. Student: Tiago José de CARVALHO. *Brazilian Computing Society (CTD/SBC), 2015*.
4. **Best Student Paper Award.** Paper: *Image Phylogeny through Dissimilarity Metrics Fusion*. Student: Ambra MELLONI. *In: European Workshop on Visual Information Processing (EUVIP), 2014, Paris, France*.
5. **Best PhD. Thesis Award.** *Sleuthing for Exposing Fauxtography and Uncovering Composition Telltales in Digital Images*. Student: Tiago José de CARVALHO. *Conference on Graphics, Patterns and Images (SIBGRAPI), 2014*.
6. **MSc. Dissertation Award – 3rd place.** *Diabetic retinopathy image quality assessment, detection, screening and referral*. Student: José Ramon Trindade Pires. *Brazilian Computing Society (SBC), 2014*.
7. **Best Student Paper Award.** Paper: *Open Set Source Camera Attribution*. Student: Filipe de Oliveira COSTA. *Conference on Graphics, Patterns and Images (SIBGRAPI), 2012*.
8. **INOVA Award for Scientific Initiation.** Student: Giuliano Roberto Pinheiro, INOVA/Unicamp, 2012.

Academic Achievements, Publications and Supervisions

(Patents and Peer-Reviewed Journals and Conferences)

Patents

- PA09 AVILA, Sandra; MOREIRA, Daniel; PEREZ, Mauricio; MORAES, Daniel; TESTONI, Vanessa; VALLE, Eduardo; GOLDENSTEIN, Siome; **ROCHA, Anderson**. *A multimodal and real-time method for sensitive media content filtering*. USPTO 15/198,626, June 30th, 2016.
- PA08 AVILA, Sandra; MOREIRA, Daniel; PEREZ, Mauricio; MORAES, Daniel; TESTONI, Vanessa; VALLE, Eduardo; GOLDENSTEIN, Siome; **ROCHA, Anderson**. *Método multimodal e em tempo real para filtragem de conteúdo sensível*. INPI/BPO BR 10.2016.007265-4, April 1st, 2016.
- PA07 MENDES Jr., Pedro Ribeiro; de SOUZA, Roberto Medeiros; WERNECK, Rafael de Oliveira; STEIN, Bernardo Vechia; PAZINATO, Daniel Vatanabe; ALMEIDA, Waldir Rodrigues de; PENATTI, Otávio A.B.; TORRES, Ricardo da S.; **ROCHA, Anderson**. *Method for Multiclass Classification in Open-set Scenarios and uses thereof*. USPTO 14/532,580, November 4th, 2014.
- PA06 MENDES Jr., Pedro Ribeiro; de SOUZA, Roberto Medeiros; WERNECK, Rafael de Oliveira; STEIN, Bernardo Vechia; PAZINATO, Daniel Vatanabe; ALMEIDA, Waldir Rodrigues de; PENATTI, Otávio A.B.; TORRES, Ricardo da S.; **ROCHA, Anderson**. *Método para classificação multiclasse em cenários abertos e usos do mesmo*. BPO/INPI/PCT, BR 10.2014.023780-1, September 25th, 2014.

- PA05 PENATTI, Otávio A.B.; WERNECK, Rafael de Oliveira; MENDES Jr., Pedro Ribeiro; ALMEIDA, Waldir Rodrigues de; STEIN, Bernardo Vechia; PAZINATO, Daniel Vatanabe; TORRES, Ricardo da S.; **ROCHA, Anderson**. *Método para Classificação Automática de Visões do Coração a partir de Ecocardiogramas*. BPO/INPI, BR 10.2014.011059, May 7th, 2014.
- PA04 **ROCHA, Anderson**; HAUAGGE, Daniel C.; WAINER, Jacques; GOLDENSTEIN, Siome. *A system and apparatus for recognizing objects in semi-controlled environments*. Intl. PCT application: PCT/BR2010/00073, March 3rd, 2010.
- PA03 SCHEIRER, Walter J.; **ROCHA, Anderson**; BOULT, Terrance E. *A system and apparatus for failure prediction and fusion in classification and recognition*. Patent USPTO 12/766,283, 2010.
- PA02 **ROCHA, Anderson**; GOLDENSTEIN, Siome. *Progressive Randomization Process and Equipment for Multimedia Analysis and Reasoning*. Intl. PCT application: PCT/BR2007/000156, June 15th, 2007.
- PA01 **ROCHA, Anderson**; GOLDENSTEIN, Siome. *Processo e Equipamento de Randomização Progressiva para Análise e Raciocínio em Multimídia*. INPI application: PI0605994-5, September 29th, 2006.

Peer-reviewed Journals

(As of 2008)

In Press

- [JA05](#) FERREIRA, Anselmo; FELIPUSSI, Siovani C.; ALFARO, Carlos; FONSECA, Pablo; John E. Vargas-Munoz; DOS SANTOS, Jefersson; and **ROCHA, Anderson**. *Behavior Knowledge Space-Based Fusion for Copy-Move Forgery Detection*. IEEE Transactions on Image Processing (T.IP), **To appear, 2016**. (**Impact Factor**: ~3.625 *Journal Citation Reports*)
- [JA04](#) BRITTO NETO, Laurindo; GRIJALVA, Felipe; MAIKE, Vanessa; MARTINI, Luiz César; FLORENCIO, Dinei; BARANAUSKAS, Cecília; **ROCHA, Anderson**; and GOLDENSTEIN, Siome. *A Kinect-Based Wearable Face Recognition System to Aid Visually Impaired Users*. IEEE Transactions on Human-Machine Systems (T.HMS), **To appear, 2016**. (**Impact Factor**: ~1.800 *Journal Citation Reports*)
- [JA03](#) FARIA, Fabio F.; ALMEIDA, Jurandy; ALBERTON, Bruna; MORELLATO, Leonor Patricia C.; **ROCHA, Anderson**; and TORRES, Ricardo da S. *Time Series-based Classifier Fusion for Fine-Grained Plant Species Recognition*. Elsevier Pattern Recognition Letter (PRL), **To appear, 2016**. (**Impact Factor**: ~1.551 *Journal Citation Reports*)
- [JA02](#) PIRES, Ramon; AVILA, Sandra; JELINEK, Herbert F.; WAINER, Jacques; VALLE, Eduardo; and **ROCHA, Anderson**. *Beyond Lesion-based Diabetic Retinopathy: a Direct Approach for Referral*. IEEE Journal of Biomedical and Health Informatics (JBHI), **To appear, 2016**. (**Impact Factor**: ~1.440 *Journal Citation Reports*)
- [JA01](#) RUPPERT, Guilherme C.S.; CHIACHIA, Guilherme; BERGO, Felipe P.G.; FAVRETTO, Fernanda; YASUDA, Clarissa; **ROCHA, Anderson**; and **FALCÃO, Alexandre**. *Medical image registration based on watershed transform from greyscale marker and multi-scale parameter search*. Taylor & Francis Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization (TCIV), **To appear, 2016**. (**Impact Factor**: ~1.770 *Journal Citation Reports*)

Published

- [J50](#) OIKAWA, Marina; DIAS, Zanoni; **ROCHA, Anderson**; and GOLDENSTEIN, Siome. *Distances in Multimedia Phylogeny*. Wiley Intl. Transactions in Operational Research (ITOR), v. 23, issue 2016, pp. 921–946. (**Impact Factor**: ~0.977 *Journal Citation Reports*)
- [J49](#) PERRE, Paula; FARIA, Fabio; JORGE RE, Leonardo; **ROCHA, Anderson**; TORRES, Ricardo da S.; LEWIN-SOHN, Thomas; ZUCCHI, Roberto A. *Toward an Automated Identification of Anastrepha Fruit Flies in the fraterculus group (Diptera, Tephritidae)*. Springer Neotropical Entomology (NENT), May, 2016, pp. 1–5. (**Impact Factor**: ~0.834 *Journal Citation Reports*)
- [J48](#) MORAES, Daniel; WAINER, Jacques; and **ROCHA, Anderson**. *Low False Positive Learning with Support Vector Machines*. Journal of Visual Communication and Image Representation (JVCI), v. 38, July 2016, pp. 340–350. (**Impact Factor**: ~1.218 *Journal Citation Reports*)
- [J47](#) CARVALHO, Tiago; FARIA, Fabio A.; PEDRINI, Hélio; TORRES, Ricardo da S.; and **ROCHA, Anderson**. *Illuminant-based Transformed Spaces for Image Forensics*. IEEE Transactions on Information Forensics and Security (T.IFS), v. 11, issue 4, 2016. (**Impact Factor**: ~2.408 *Journal Citation Reports*)
- [J46](#) BONDI, Luca; BAROFFIO, Luca; CESANA, Matteo; TAGLIASSACHI; CHIACHIA, Giovanni; and **ROCHA, Anderson**. *Rate-energy-accuracy optimization of convolutional architectures for face recognition*.

- Journal of Visual Communication and Image Representation (JVCI), v. 36, April 2016, pp. 142–148. (**Impact Factor**: ~1.218 *Journal Citation Reports*)
- [J45](#) PAZINATO, Daniel V.; STEIN, Bernardo V.; ALMEIDA, Waldir R.; WERNECK, Rafael de O.; MENDES Jr., Pedro R.; PENATTI, Otavio A. B.; TORRES, Ricardo da S.; MENEZES, Fábio H.; and **ROCHA, Anderson**. *Pixel-Level Tissue Classification for Ultrasound Images*. IEEE Journal of Biomedical and Health Informatics (JBHI), v. 20, Issue 1, pp. 256–267, 2016. (**Impact Factor**: ~1.440 *Journal Citation Reports*)
- [J44](#) OLIVEIRA, Alberto; FERRARA, Pasquale; DE ROSA, Alessia; PIVA, Alessandro; BARNI, Mauro; GOLDENSTEIN, Siome; DIAS, Zanoni; and **ROCHA, Anderson**. *Multiple Parenting Phylogeny Relationships in Digital Images*. IEEE Transactions on Information Forensics and Security (T.IFS), v. 11, Issue 2, pp. 328–343, 2016. (**Impact Factor**: ~2.408 *Journal Citation Reports*)
- [J43](#) OIKAWA, Marina; DIAS, Zanoni; **ROCHA, Anderson**; and GOLDENSTEIN, Siome. *Manifold Learning and Spectral Clustering for Image Phylogeny Forests*. IEEE Transactions on Information Forensics and Security (T.IFS), v. 11, Issue 1, pp. 5–18, 2016. (**Impact Factor**: ~2.408 *Journal Citation Reports*)
- [J42](#) FERREIRA, Anselmo; DOS SANTOS, Jefferson A.; and **ROCHA, Anderson**. *Multi-directional and Multi-scale Perturbation Approaches for Blind Forensic Median Filtering Detection*. IOS Journal of Intelligent Data Analysis (JIDA), v. 20, issue s1, pp. S17–S36, 2016. (**Impact Factor**: ~0.606 *Journal Citation Reports*)
- [J41](#) PENATTI, Otavio A. B.; Rafael de O.; ALMEIDA, Waldir R.; WERNECK; STEIN, Bernardo V.; PAZINATO, Daniel V.; MENDES Jr., Pedro R.; TORRES, Ricardo da S.; and **ROCHA, Anderson**. *Mid-level Image Representations for Real-time Heart View Plane Classification of Echocardiograms*. Elsevier Computers in Biology and Medicine (CBME), v. 66, pp. 66–81, 2015. (**Impact Factor**: ~1.240 *Journal Citation Reports*)
- [J40](#) PINTO, Allan da Silva; SCHWARTZ, William; PEDRINI, Hélio; and **ROCHA, Anderson**. *Face Spoofing Detection Through Visual Codebooks of Spectral Temporal Cubes*. IEEE Transactions on Image Processing (T.IP), v. 24, Issue 12, pp. 4726–4740, 2015. (**Impact Factor**: ~3.625 *Journal Citation Reports*)
- [J39](#) **ROCHA, Anderson**; and **SCHEIRER, Walter**. *Large-scale learning for media understanding*. Springer/Eurasip Journal on Image and Video Processing (JIVP), v. 24, pp. 1–3, 2015. (**Impact Factor**: ~0.736 *Journal Citation Reports*)
- [J38](#) PIRES, Ramon; CARVALHO, Tiago; SPURLING, Geoffrey; GOLDENSTEIN, Siome; WAINER, Jacques; LUCKIE, Alan; JELINEK, Herbert F.; and **ROCHA, Anderson**. *Automated Multi-Lesion Detection for Referable Diabetic Retinopathy in Indigenous Health Care*. PLOS ONE, v. 10, Issue 6, pp. e0127664, 2015. (**Impact Factor**: ~3.234 *Journal Citation Reports*)
- [J37](#) PINTO, Allan da Silva; SCHWARTZ, William; PEDRINI, Hélio; and **ROCHA, Anderson**. *Using Visual Rhythms for Detecting Video-based Facial Spoof Attacks*. IEEE Transactions on Information Forensics and Security (T.IFS), v. 10, Issue 5, pp. 1025–1038, 2015. (**Impact Factor**: ~2.408 *Journal Citation Reports*)
- [J36](#) WAINER, Jacques; ECKMANN, Michael; and **ROCHA, Anderson**. *Peer-selected “best papers” – are they really that “good”?*. PLOS ONE, Volume 10, Issue 3, pp. e0118446, 2015. (**Impact Factor**: ~3.234 *Journal Citation Reports*)
- [J35](#) SILVA, Ewerton de A.; CARVALHO, Tiago; FERREIRA, Anselmo; and **ROCHA, Anderson**. *Going deeper into copy-move forgery detection: exploring image telltales via multi-scale analysis and voting processes*. Journal of Visual Communication and Image Representation (JVCI), v. 29, Issue 5, pp. 16–32, 2015. (**Impact Factor**: ~1.218 *Journal Citation Reports*)
- [J34](#) MENOTTI, David; CHIACHIA, Giovanni; PINTO, Allan da Silva; SCHWARTZ, William; PEDRINI, Hélio; FALCÃO, Alexandre; and **ROCHA, Anderson**. *Deep Representations for Iris, Face, and Fingerprint Spoofing Detection*. IEEE Transactions on Information Forensics and Security (T.IFS), v. 10, Issue 4, p. 864–879, 2015. (**Impact Factor**: ~2.408 *Journal Citation Reports*)
- [J33](#) FERREIRA, Anselmo; NAVARRO, Luiz C.; PINHEIRO, Giuliano; DOS SANTOS, Jefferson A.; and **ROCHA, Anderson**. *Laser printer attribution: Exploring new features and beyond*. Elsevier Forensic Science International (FSI), v. 247, Issue 2, p. 105–125, 2015. (**Impact Factor**: ~2.140 *Journal Citation Reports*)
- [J32](#) CARVALHO, Tiago; PEDRINI, Hélio; and **ROCHA, Anderson**. *Visual Computing and Machine Learning Techniques for Digital Forensics*. Journal of Theoretical and Applied Computing (RITA), v. 22, Issue 1, pp. 128–153.
- [J31](#) CHIACHIA, Giovanni; FALCÃO, Alexandre; PINTO, Nicolas; **ROCHA, Anderson**, and COX, David. *Learning Person-Specific Representations from Faces in the Wild*. IEEE Transactions on Information Forensics and Security (T.IFS), v. 9, Issue 12, p. 2089–2099, 2014. (**Impact Factor**: ~2.408 *Journal Citation Reports*)
- [J30](#) FARIA, Fabio A.; PERRE, Paula; ZUCCHI, Roberto A.; JORGE, Leonardo R.; LEWINSON, Thomas M.; **ROCHA, Anderson**; TORRES, Ricardo. *Automatic identification of fruit flies (Diptera: Tephritidae)*. Journal of Visual Communication and Image Representation (JVCI), v. 25, Issue 7, p. 1516–1527, 2014. (**Impact Factor**: ~1.218 *Journal Citation Reports*)
- [J29](#) COSTA, Filipe de O.; OIKAWA, Marina; DIAS, Zanoni; GOLDENSTEIN, Siome; **ROCHA, Anderson**. *Image Phylogeny Forests Reconstruction*. IEEE Transactions on Information Forensics and Security (T.IFS), v. 9, issue 10, p. 1533–1546, 2014. (**Impact Factor**: ~2.408 *Journal Citation Reports*)

- [J28](#) PIRES, Ramon; JELINEK, Herbert F.; Wainer, Jacques; VALLE, Eduardo; **ROCHA, Anderson**. *Advancing Bag-of-Visual-Words Representations for Lesion Classification in Retinal Images*. PLOS ONE, v. 9, issue 6, p. e96814-1–e96814-12, 2014. (**Impact Factor**: ~3.234 *Journal Citation Reports*)
- [J27](#) FARIA, Fabio A., DOS SANTOS, PEDRONETTE, Daniel C.G.; Jefersson Alex, **ROCHA, Anderson**, TORRES, Ricardo. *Rank Aggregation for Pattern Classifier Selection in Remote Sensing Images*. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (JSTARS), v. 7, p. 1103–1115, 2014. (**Impact Factor**: ~3.026 *Journal Citation Reports*)
- [J26](#) FARIA, Fabio A., DOS SANTOS, Jefersson Alex, **ROCHA, Anderson**, TORRES, Ricardo. *A Framework for Selection and Fusion of Pattern Classifiers in Multimedia Recognition*. Elsevier Pattern Recognition Letters (PRL), v. 39, pp. 52–64, 2014. (**Impact Factor**: ~1.551 *Journal Citation Reports*)
- [J25](#) COSTA, Filipe; SILVA, Ewerton; ECKMANN, Michael; SCHEIRER, Walter J.; **ROCHA, Anderson**. *Open set source camera attribution and device linking*. Elsevier Pattern Recognition Letters, (PRL), v. 39, pp. 91–101, 2014. (**Impact Factor**: ~1.551 *Journal Citation Reports*)
- [J24](#) FABIAN, Junior; PIRES, Ramon; **ROCHA, Anderson**. *Visual words dictionaries and fusion techniques for searching people through textual and visual attributes*. Elsevier Pattern Recognition Letters (PRL), v. 39, pp. 74–84, 2014. (**Impact Factor**: ~1.551 *Journal Citation Reports*)
- [J23](#) MORAIS, Erikson; FERREIRA, Anselmo; CUNHA, Sergio Augusto; BARROS, Ricardo M.L.; **ROCHA, Anderson**; GOLDENSTEIN, Siome. *A multiple camera methodology for automatic localization and tracking of futsal players*. Elsevier Pattern Recognition Letters, (PRL), v. 39, pp. 21–30, 2014. (**Impact Factor**: ~1.551 *Journal Citation Reports*)
- [J22](#) **ROCHA, Anderson**, GOLDENSTEIN, Siome. *Multiclass from Binary: Expanding One-vs-All, One-vs-One and ECOC-based Approaches*. IEEE Transactions on Neural Networks and Learning Systems (T.NNLS), v. 25, issue 2, p. 289–302, 2014. (**Impact Factor**: ~4.291 *Journal Citation Reports*)
- [J21](#) PIRES, Ramon; JELINEK, Herbert F.; Wainer, Jacques; GOLDENSTEIN, Siome; VALLE, Eduardo; **ROCHA, Anderson**. *Assessing the Need for Referral in Automatic Diabetic Retinopathy Detection*. IEEE Transactions on Biomedical Engineering (T.BME), v. 60, p. 3391-3398, 2013. (**Impact Factor**: ~2.347 *Journal Citation Reports*)
- [J20](#) TOKUDA, Eric; PEDRINI, Hélio; **ROCHA, Anderson**. *Computer generated images vs. digital photographs: A synergetic feature and classifier combination approach*. Elsevier Journal of Visual Communication and Image Representation (JVCI), v. 24, p. 1276-1292, 2013. (**Impact Factor**: ~1.218 *Journal Citation Reports*)
- [J19](#) DIAS, Zanoni, Siome Klein Goldenstein, **ROCHA, Anderson** *Exploring Heuristic and Optimum Branching Algorithms for Image Phylogeny*. Elsevier Journal of Visual Communication and Image (JVCI), v. v. 24, p. 1124-1134, 2013. (**Impact Factor**: ~1.218 *Journal Citation Reports*)
- [J18](#) DIAS, Zanoni; GOLDENSTEIN, Siome; **ROCHA, Anderson** *Large-Scale Image Phylogeny: Tracing Back Image Ancestry Relationships*. IEEE Multimedia (MM), v. 20, p. 58-70, 2013. (**Impact Factor**: ~1.694 *Journal Citation Reports*)
- [J17](#) CARVALHO, Tiago; RIESS, Christian; ANGELOPOULOU, Elli; PEDRINI, Hélio; **ROCHA, Anderson**. *Exposing Digital Image Forgeries by Illumination Color Classification*. IEEE Transactions on Information Forensics and Security (T.IFS), v. 8, p. 1182-1194, 2013. (**Impact Factor**: ~2.408 *Journal Citation Reports*)
- [J16](#) WAINER, Jacques; ECKMANN, Michael; GOLDENSTEIN, Siome; **ROCHA, Anderson**. *Differences in Productivity and Impact across Computer Science Subareas*. Communications of ACM (CACM), v. 56, p. 67, 2013. (**Impact Factor**: ~3.621 *Journal Citation Reports*)
- [J15](#) DIAS, Zanoni; Siome Klein Goldenstein; **ROCHA, Anderson**. *Toward Image Phylogeny Forests: Automatically Recovering Semantically-Similar Image Relationships*. Elsevier Forensic Science International (FSI), v. 231, 178–189, 2013. (**Impact Factor**: ~2.140 *Journal Citation Reports*)
- [J14](#) SCHEIRER, Walter; **ROCHA, Anderson**; SAPKOTA, Archana; and BOULT, Terrance E. *Towards Open Set Recognition*. IEEE Transactions on Pattern Analysis and Machine Intelligence (T.PAMI), v. 35, p. 1757-1772, 2013. (**Impact Factor**: ~5.781 *Journal Citation Reports*)
- [J13](#) ECKMANN, Michael; **ROCHA, Anderson**; Wainer, Jacques. *Relationship between high-quality journals and conferences in computer vision*. Scientometrics (SCIENT), v. 90, p. 617-630, 2012. (**Impact Factor**: ~2.183 *Journal Citation Reports*)
- [J12](#) **ROCHA, Anderson**; CARVALHO, Tiago; JELINEK, Herbert F.; GOLDENSTEIN, Siome Klein; Jacques WAINER. *Points of Interest and Visual Dictionaries for Automatic Retinal Lesion Detection*. IEEE Transactions on Biomedical Engineering (T.BME), v. 59, p. 2244-2253, 2012. (**Impact Factor**: ~2.347 *Journal Citation Reports*)
- [J11](#) SCHEIRER, Walter J.; **ROCHA, Anderson**; PARRIS, Jonathan; BOULT, Terrance E. *Learning for Meta-Recognition*. IEEE Transactions on Information Forensics and Security (T.IFS), v. 7, p. 1214-1224, 2012. (**Impact Factor**: ~2.408 *Journal Citation Reports*)
- [J10](#) DIAS, Zanoni; **ROCHA, Anderson**; GOLDENSTEIN, Siome. *Image Phylogeny by Minimal Spanning Trees*. IEEE Transactions on Information Forensics and Security (T.IFS), v. 7, p. 774-788, 2012. (**Impact Factor**: ~2.347 *Journal Citation Reports*)

tor: ~ 2.408 *Journal Citation Reports*)

- [J09](#) **ROCHA, Anderson**; PAPA, João. P.; MEIRA, Luis A. A. *How Far do We Get Using Machine Learning Black-Boxes?* In: Intl. Journal of Pattern Recognition and Artificial Intelligence (IJPRAI), v. 26, 1261001–1261001-26, 2012. (**Impact Factor**: ~ 0.669 *Journal Citation Reports*)
- [J08](#) MORISSON, André Luiz da Costa; LAMBERT, Jorge de Albuquerque; REIS, Paulo Max Gil Innocencio; **ROCHA, Anderson**. *Perícia Criminal Brasileira, Estado da Arte e Tecnologias*. Perícia Federal (PF), v. XIII, p. 44-46, 2012.
- [J07](#) **ROCHA, Anderson**; SCHEIRER, Walter; BOULT, Terrance E.; GOLDENSTEIN, Siome. *Vision of the Unseen: Current Trends and Challenges in Digital Image and Video Forensics*. In: ACM Computing Surveys (CSUR), v. 43, p. 26:1-26:42, 2011. (**Impact Factor**: ~ 3.373 *Journal Citation Reports*)
- [J06](#) SCHEIRER, Walter; **ROCHA, Anderson**; Michaels, ROSS J., BOULT, Terrance E. *Meta- Recognition: The Theory and Practice of Recognition Score Analysis*. In: IEEE Transactions on Pattern Analysis and Machine Intelligence (T.PAMI), v. 33, issue 8, p. 1689-1695, 2011. (**Impact Factor**: ~ 5.781 *Journal Citation Reports*)
- [J05](#) **ROCHA, Anderson**; GOLDENSTEIN, Siome. *Progressive Randomization: Seeing the Unseen*. In: Elsevier Computer Vision and Image Understanding (CVIU), v. 114, issue 3, p. 349-362, 2010. (**Impact Factor**: ~ 1.540 *Journal Citation Reports*)
- [J04](#) SILVA, Ewerton; **ROCHA, Anderson**. *Análise Forense de Documentos Digitais: Além da Visão Humana*. In: Saúde, Ética e Justiça (SEJ), v. 16, p. 9-17, 2011.
- [J03](#) **ROCHA, Anderson**; HAUAGGE, Daniel C.; WAINER, Jacques; GOLDENSTEIN, Siome. *Automatic fruit and vegetable classification from images*. In: Elsevier Comp. and Electronics in Agriculture (COMPAG), v. 70, issue 1, p. 96-104, 2010. (**Impact Factor**: ~ 1.761 *Journal Citation Reports*)
- [J02](#) MIRANDA, Paulo A. V.; FALCÃO, Alexandre X.; **ROCHA, Anderson**; BERGO, Felipe P. G. *Object delineation by κ -connected components*. In: Eurasip Journal on Advances in Signal Processing (JASP), v. 2008, p. 1-14, 2008. (**Impact Factor**: ~ 1.012 *Journal Citation Reports*)
- [J01](#) **ROCHA, Anderson**; GOLDENSTEIN, Siome. *Steganography and Steganalysis in Digital Multimedia: Hype or Hallelujah?*. In: Journal of Theoretical and Applied Computing (RITA), v. 15, p. 83-110, 2008.

Peer-reviewed Conferences

(As of 2008)

- C47 FOLEGO, Guilherme; GOMES, Otávio; and **ROCHA, Anderson**. *From Impressionism to expressionism: automatically identifying Van Gogh's Paintings*. In: IEEE Intl. Conference on Image Processing (ICIP), 2016, Phoenix, USA.
- C46 COSTA, Filipe de Oliveira; LAMERI, Silvia; BESTAGINI, Paolo; DIAS, Zanoni; **ROCHA, Anderson**; TAGLIASACCHI, Marco; and TUBARO, Stefano. *Phylogeny Reconstruction for Misaligned and Compressed Video Sequences*. In: IEEE Intl. Conference on Image Processing (ICIP), 2015, Québec City, Canada.
- C45 SEIBEL Jr., Hilario; **ROCHA, Anderson**; and GOLDENSTEIN, Siome. *Fast and effective geometric k-nearest neighbors multi-frame super-resolution*. In: Conference on Graphics, Patterns and Images (SIBGRAPI), 2015, Salvador, Brazil.
- C44 NETO, Laurindo B. N.; MAIKE, Vanessa; KOCH, Fernando; BARANAUSKAS, Cecilia; **ROCHA, Anderson**; and GOLDENSTEIN, Siome. *A Wearable Face Recognition System built into a Smartwatch and the Visually Impaired User* In: Intl. Conference on Enterprise Information Systems, 2015, Barcelona, Spain.
- C43 MOREIRA, Daniel; AVILA, Sandra; PEREZ, Mauricio; MORAES, Daniel; TESTONI, Vanessa; VALLE, Eduardo; GOLDENSTEIN, Siome; **ROCHA, Anderson**. *RECOD at MediaEval 2015: Affective Impact of Movies Task* In: MediaEval 2014 Multimedia Benchmark Workshop, 2015, Wurzen, Germany.
- C42 AVILA, Sandra; MOREIRA, Daniel; PEREZ, Mauricio; MORAES, Daniel; COTA, Isabela; TESTONI, Vanessa; VALLE, Eduardo; GOLDENSTEIN, Siome; **ROCHA, Anderson**. *RECOD at MediaEval 2014: Violent Scenes Detection Task* In: MediaEval 2014 Multimedia Benchmark Workshop, 2014, Barcelona, Spain.
- C41 OLIVEIRA, Alberto; FERRARA, Pasquale; DE ROSA, Alessia; PIVA, Alessandro; BARNI, Mauro; GOLDENSTEIN, Siome; DIAS, Zanoni; **ROCHA, Anderson**. *Multiple Parenting Identification in Image Phylogeny*. In: IEEE Intl. Conference on Image Processing (ICIP), 2014, Paris, France.
- C40 LAMERI, Silvia; BESTAGINI, Paolo; MELLONI, Ambra; MILANI, Simoni; **ROCHA, Anderson**, TAGLIASACCHI, Marco; TUBARO, Stefano. *Who is my Parent? Reconstructing Video Sequences from Partially Matching Shots*. In: IEEE Intl. Conference on Image Processing (ICIP), Paris, France.
- C39 CAVALCANTE, Thiago; **ROCHA, Anderson**; CARVALHO, Ariadne. *Large-Scale Micro-Blog Authorship Attribution: Beyond Simple Feature Engineering*. In: Iberoamerican Congress on Pattern Recognition (CIARP), 2014, Puerto Vallarta, Mexico.
- C38 FERREIRA, Anselmo; **ROCHA, Anderson**. *A Multiscale and Multi-Perturbation Blind Forensic Technique For Median Detecting*. In: Iberoamerican Congress on Pattern Recognition (CIARP), 2014, Puerto Vallarta,

Mexico.

- C37 MELLONI, Ambra; BESTAGINI, Paolo; MILANI, Simoni; TAGLIASACCHI, Marco; **ROCHA, Anderson**; TUBARO, Stefano. *Image Phylogeny through dissimilarity metrics fusion*. In: European Workshop on Visual Information Processing (EUVIP), 2014, Paris, France.
- C36 PIRES, Ramon; AVILA, Sandra; JELINEK, Herbert; WAINER, Jacques; VALLE, Eduardo; **ROCHA, Anderson**. *Automatic Diabetic Retinopathy Detection using BossaNova Representation*. In: IEEE Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS), 2014, Chicago, USA.
- C35 FARIA, Fabio A., DOS SANTOS, Jefersson Alex, SARKAR, Sudeep, **ROCHA, Anderson**, TORRES, Ricardo. *Classifier Selection based on the Correlation of Diversity Measures: When Fewer is More*. In: Conference on Graphics, Patterns and Images (SIBGRAPI), 2013, Arequipa, Peru.
- C34 CHINGOVSKA, I. YANG, J. LEI, Z. YI, D. LI, S. Z. KAHM, O. GLASER, C. DAMER, N. KUIJPER, A. NOUAK, A. KOMULAINEN, J. PEREIRA, T. GUPTA, S. KHANDELWAL, S. BANSAL, S. RAI, A. KRISHNA, T. GOYAL, D. WARIS, M. ZHANG, H. AHMAD, I. KIRANYAZ, S. GABBOUJ, M. TRONCI, R. PILI, M., **ROCHA, Anderson**, et al.; *The 2nd Competition on Counter Measures to 2D Face Spoofing Attacks*. In: IAPR Intl. Conference on Biometrics (ICB-2013), 2013, Madrid, Spain.
- C33 GUNTHER, M. COSTA-PAZO, A. DING, C. BOUTELLAA, E. CHIACHIA, Giovanni ZHANG, H. ANGELONI, M. A. STRUC, V. KHOURY, E. VAZQUEZ-FERNANDEZ, E. TAO, D. BENGHERABI, M. COX, David KIRANYAZ, S. PEREIRA, T. F. ZGANEC-GROS, J. ARGONES-RUA, E. PINTO, Nicolas GABBOUJ, M. SIMOES, F. DOBRISEK, S. GONZALEZ-JIMENEZ, D. ROCHA, Anderson ULIANI NETO, M. PAVESIC, N., **ROCHA, Anderson**, et al.; *The 2013 Face Recognition Evaluation in Mobile Environment*. In: IAPR Intl. Conference on Biometrics (ICB-2013), 2013, Madrid, Spain.
- C32 JELINEK, Herbert F., PIRES, Ramon, PADILHA, Rafael, Goldenstein, Siome, Wainer, Jacques, **ROCHA, Anderson**. *Quality Control and Multi-lesion Detection in Automated Retinopathy Classification using a Visual Words Dictionary*. In: Intl. Conference of the IEEE Engineering in Medicine and Biology Society (EMBS), p.5857– 5860, 2013, Osaka, Japan.
- C31 CHIACHIA, Giovanni; PINTO, Nicolas; SCHWARTZ, William Robson; **ROCHA, Anderson**; FALCÃO, Alexandre X.; COX, David. *Person-Specific Subspace Analysis for Unconstrained Familiar Face Identification*. In: British Machine Vision Conference (BMVC), 2012, Surrey, UK.
- C30 AFONSO, Luis; PAPA, João. P.; PAPA, Luciene; MARANA, Aparecido Nilceu; **ROCHA, Anderson**. *Automatic Visual Dictionary Generation Through Optimum-Path Forest Clustering*. In: IEEE Intl. Conference on Image Processing (ICIP), 2012, Orlando, USA.
- C29 DOS SANTOS, Jefersson Alex; FARIA, Fabio A.; TORRES, Ricardo; **ROCHA, Anderson**; GOSELIN Philippe Henri; PHILIPP-FOLIGUET, Sylvie; FALCÃO, Alexandre X. *Descriptor Correlation Analysis for Remote Sensing Image Multi-Scale Classification* In: IAPR Intl. Conference on Pattern Recognition (ICPR), 2012, Tsukuba, Japan.
- C28 FARIA, Fabio A.; DOS SANTOS, Jefersson Alex; TORRES, Ricardo; **ROCHA, Anderson**; FALCÃO, Alexandre X. *Automatic Fusion of Region-based Classifiers for Coffee Crop Recognition*. In: IEEE Intl. Geoscience and Remote Sensing Symposium (IGARSS), 2012, Munich, Germany.
- C27 JELINEK, Herbert F.; PIRES, Ramon; PADILHA, Rafael; GOLDENSTEIN, Siome Klein; Jacques WAINER; **ROCHA, Anderson**. *Data fusion for multi-lesion diabetic retinopathy detection*. In: IEEE Intl. Symposium on Computer-based Medical System (CBMS), 2012, Rome, Italy.
- C26 MORAIS, Erikson Freitas de; GOLDENSTEIN, Siome Klein; **ROCHA, Anderson**; *Automatic Localization of Indoor Soccer Players From Multiple Cameras*. In: Intl. Conference on Computer Vision Theory and Applications (VISAPP), Rome, Italy, 2012.
- C25 FARIA, Fabio A.; DOS SANTOS, Jefersson Alex; **ROCHA, Anderson**; TORRES, Ricardo. *Automatic Classifier Fusion for Produce Recognition*. In: Conference on Graphics, Patterns and Images (SIBGRAPI), 2012, Ouro Preto, Brazil.
- C24 MORAIS, Erikson Freitas de; GOLDENSTEIN, Siome Klein; FERREIRA, A. C. B.; **ROCHA, Anderson**. *Automatic Tracking of Indoor Soccer Players Using Videos from Multiple Cameras*. In: Conference on Graphics, Patterns and Images (SIBGRAPI), 2012, Ouro Preto, Brazil.
- C23 COSTA, Filipe de Oliveira; ECKMANN, Michael; SCHEIRER, Walter J.; **ROCHA, Anderson**. *Open Set Source Camera Attribution*. In: Conference on Graphics, Patterns and Images (SIBGRAPI), 2012, Ouro Preto, Brazil.
- C22 PIRES, Ramon; Jacques WAINER; JELINEK, Herbert F.; **ROCHA, Anderson**. *Retinal Image Quality Analysis for Automatic Diabetic Retinopathy Detection*. In: Conference on Graphics, Patterns and Images (SIBGRAPI), 2012, Ouro Preto, Brazil.
- C21 FABIAN, Junior; PIRES, Ramon; **ROCHA, Anderson**. *Searching for People through Textual and Visual Attributes*. In: Conference on Graphics, Patterns and Images (SIBGRAPI), 2012, Ouro Preto, Brazil.
- C20 PINTO, Allan da Silva; PEDRINI, Hélio; SCHWARTZ, William Robson; **ROCHA, Anderson**. *Video-Based*

- Face Spoofing Detection through Visual Rhythm Analysis*. In: Conference on Graphics, Patterns and Images (SIBGRAPI), 2012, Ouro Preto, Brazil.
- C19 DIAS, Zanoni; **ROCHA, Anderson**; GOLDENSTEIN, Siome Klein. *Video Phylogeny: Recovering Near-Duplicate Video Relationships*. In: *IEEE Intl. Workshop on Information Forensics and Security*. In: IEEE Intl. Workshop on Information Forensics and Security (WIFS). Seattle, USA, 2011.
- C18 CHIACHIA, Giovanni; FALCÃO, Alexandre X.; **ROCHA, Anderson**. *Person-Specific Face Representation for Recognition*. In: IEEE/IAPR Intl. Joint Conference on Biometrics (IJCB). Washington, USA, 2011.
- C17 SCHWARTZ, William Robson; **ROCHA, Anderson**; PEDRINI, Hélio. *Face Spoofing Detection through Partial Least Squares and Low-Level Descriptors*. In: IEEE/IAPR Intl. Joint Conf. on Biometrics (IJCB). Washington, USA, 2011.
- C16 CHAKKA, Murali Mohan; ANJOS, André; MARCEL, Sébastien; TRONCI, Roberto; MUNTONI, Daniele; FADDA, Gianluca; PILI, Maurizio; SIRENA, Nicola; MURGIA, Gabriele; RISTORI, Marco; ROLI, Fabio; YAN, Junjie; YI, Dong; LEI, Zhen; ZHANG, Zhiwei; LI, Stan Z.; SCHWARTZ, William Robson; **ROCHA, Anderson**; PEDRINI, Hélio; LORENZO-NAVARRO, Javier; CASTRILLON-SANTANA, Modesto; MAATTA, Jukka; HADID, Abdenour; PIETIKAINEN, Matti. *Competition on Counter Measures to 2-D Facial Spoofing Attacks*. In: IEEE/IAPR Intl. Joint Conference on Biometrics (IJCB). Washington, USA, 2011.
- C15 JELINEK, Herbert F.; **ROCHA, Anderson**; CARVALHO, Tiago; GOLDENSTEIN, Siome Klein; Jacques WAINER. *Machine Learning and Pattern Classification in Identification of Indigenous Retinal Pathology*. In: 33rd Annual Intl. Conference of the IEEE Engineering in Medicine and Biology Society. Boston, USA, 2011.
- C14 SABOIA, Priscila; Tiago Carvalho; **ROCHA, Anderson**. *Eye Specular Highlights Telltales for Digital Forensics: A Machine Learning Approach*. In: IEEE Intl. Conference on Image Processing (ICIP), 2011, Brussels, Belgium.
- C13 PEIXOTO, Bruno; MICHELASSI, Carolina; **ROCHA, Anderson**. *Face Liveness Detection Under Bad Illumination Conditions*. In: IEEE Intl. Conference on Image Processing (ICIP), 2011, Brussels, Belgium.
- C12 PAPA, João. P.; **ROCHA, Anderson**. *Image Categorization Through Optimum-Path Forest and Visual Words*. In: IEEE Intl. Conference on Image Processing (ICIP), 2011, Brussels, Belgium.
- C11 DIAS, Zanoni; **ROCHA, Anderson**; GOLDENSTEIN, Siome Klein. *First Steps Toward Image Phylogeny*. In: IEEE Intl. Workshop on Information Forensics and Security (WIFS). Seattle, USA, 2010.
- C10 SCHEIRER, Walter; **ROCHA, Anderson**; MICHAELS, Ross; BOULT, Terrance. *Robust Fusion: Extreme Value Theory for Recognition Score Normalization*. In: European Conference on Computer Vision (ECCV). Heraklion, Greece, 2010.
- C09 QUILLES, Marcos; ZHAO, Liang; BREVE, Fabricio; **ROCHA, Anderson**. *Label Propagation Through Neuronal Synchrony*. In: Intl. Joint Conference on Neural Networks (IJCNN). Barcelona, Spain, 2010.
- C08 **ROCHA, Anderson**; PAPA, João Paulo; MEIRA, Luis A. A. *How Far You Can Get Using Machine Learning Black-Boxes*. In: 23rd Conference on Graphics, Patterns and Images (SIBGRAPI). Gramado, Brazil, 2010.
- C07 **ROCHA, Anderson**; GOLDENSTEIN, Siome. *High-Profile Forensic Analysis of Images*. In: Intl. Conference on Imaging for Crime Detection and Prevention (ICDP), London, UK, 2009.
- C06 SCHEIRER, Walter; **ROCHA, Anderson**; HEFLIN, Brian; BOULT, Terrance E. *Difficult Detection: A Comparison of Two Different Approaches to Eye Detection for Unconstrained Environments*. In: IEEE Intl. Conference on Biometrics: Theory, Applications, and Systems (BTAS), Washington, USA, 2009.
- C05 **ROCHA, Anderson**; GOLDENSTEIN, Siome. *From binary to multi-class: divide to conquer*. In: Intl. Conference on Computer Vision Theory and Applications (VISAPP), Lisbon, Portugal, 2009.
- C04 **ROCHA, Anderson**; ALMEIDA, Jurandy; NASCIMENTO, Mario A.; TORRES, Ricardo; GOLDENSTEIN, Siome. *Efficient and Flexible Cluster-and-Search for CBIR*. In: Proc. of the 10th Intl. Conference on Advanced Concepts for Intelligent Vision Systems (ACIVS), Juan-les-Pins, France, 2008.
- C03 **ROCHA, Anderson**; HAUAGGE, Daniel C.; WAINER, Jacques; GOLDENSTEIN, Siome. *Automatic produce classification from images using color, texture and appearance cues*. In: Proc. of the 21st Conference on Graphics, Patterns and Images (SIBGRAPI), Campo Grande, Brazil, 2008.
- C02 ALMEIDA, Jurandy; **ROCHA, Anderson**; TORRES, Ricardo; GOLDENSTEIN, Siome. *Colors worth more than a thousand words*. In: Proc. of the 23rd Annual ACM Symposium on Applied Computing - ACM-SAC, Fortaleza, Brazil, 2008.
- C01 **ROCHA, Anderson**; GOLDENSTEIN, Siome. *PR: More than Meets the Eye*. In: Proc. of the 11th IEEE Intl. Conference on Computer Vision (ICCV), Rio de Janeiro, 2007.

Book Chapters

- BC04 NETO, Laurindo B. N.; MAIKE, Vanessa; KOCH, Fernando; BARANAUSKAS, Cecilia; **ROCHA, Anderson**; and GOLDENSTEIN, Siome. *A Wearable Face Recognition System Built into a Smartwatch and the Blind and Low Vision Users*. In Book: Lecture Notes in Business Information Processing, Intl. Conference on Enterprise Information Systems (ICEIS), v. 241, pp. 1–14.

- BC03 CARVALHO, Tiago; PINTO, Allan da Silva; COSTA, Filipe de Oliveira; PINHEIRO, Giuliano Roberto; **ROCHA, Anderson**. *Crime Scene Investigation (CSI): da Ficção à Realidade*. Escola Regional de Informática de Minas Gerais (ERI-MG). (Org.). Anais da VII Escola Regional de Informática de Minas Gerais. 1ed. Juiz de Fora: ERI-MG, 2012, p. 1-23.
- BC02 HEFLIN, Brian; SCHEIRER, Walter J.; **ROCHA, Anderson**; BOULT, Terrance E. *A Look at Eye Detection for Unconstrained Environments*. In: Patrick S.P. Wang. (Org.). Pattern Recognition, Machine Intelligence and Biometrics: Expanding Frontiers (2011), Springer-Verlag. ISBN 978-3-642-22406-5.
- BC01 **ROCHA, Anderson**; GOLDENSTEIN, Siome. *CSI: Análise Forense de Documentos Digitais*. Atualizações em Informática (JAI), 2010, pp. 263-317. Brazilian Computer Society, (SBC). ISBN 978-85-8006-011-9.

Research Grants

Ongoing As Principal Investigator

- (2016-2019) *MediFor: Media Forensics Integrity Analytics*. **Brazilian Coordinator**: Prof. Dr. Anderson Rocha.. **General Coordinator**: Prof. Edward Delp, Purdue University, USA. **U.S. Defense Advanced Research Projects Agency (DARPA)**.
- (2014-2019) *DeepEyes: Visual Computing and Machine Intelligence Techniques for Digital Forensics and Electronic Surveillance*. **Coordinator**: Prof. Dr. Anderson Rocha. **Associate Coordinator**: Prof. Dr. William Robson Schwartz (DCC/UFGM). **Brazilian Coordination for the Improvement of Higher Level Education Personnel (CAPES)**.
- (2016-2019) *Identity: Computer Vision Enabled Multimedia Forensics and People Identification*. **Brazilian Coordinator**: Prof. Dr. Anderson Rocha.. **General Coordinator**: Prof. Chang-Tsun Li, University of Warwick, UK. **Horizon 2020 Program (H2020), European Union**.
- (2016-2017) *DéjàVû: Social Media Forensics for Interpreting Criminal Events*. Sabbatical Research Funding. **Coordinator**: Prof. Dr. Anderson Rocha. **Partners**: Prof. Kevin Bowyer (University of Notre Dame, US) and Prof. Alex Kot (Nanyang Technological University, Singapore). **São Paulo Research Foundation (FAPESP)**.
- (2015-2016) *BioLive: Multi-feature and Open-Set Authentication Techniques for Mobile Devices*. **Coordinator**: Prof. Dr. Anderson Rocha. **Motorola Mobility**.

Ongoing as an Associate Researcher

- No current project as an associate researcher.

Concluded as Principal Investigator

- (2015-2016) *SmartID: Smart and Continuous Authentication Techniques for Mobile Devices*. **Coordinator**: Prof. Dr. Anderson Rocha. **LG Electronics (LGE)**.
- (2013-2016) *Técnicas de Computação Visual e Inteligência de Máquina para Problemas Forenses, de Segurança Digital e de Vigilância Eletrônica*. **Coordinator**: Prof. Dr. Anderson Rocha. **National Counsel of Technological and Scientific Development (CNPq)**, Universal Project.
- (2013-2016) *Sensitive Media Analysis*. **Coordinator**: Prof. Dr. Anderson Rocha. **Samsung Electronics**.
- (2015-2016) *SpotMe: Design and Development of Object Recognition and Data Fusion Techniques for Mobile and Wearable Devices*. **Coordinator**: Prof. Dr. Anderson Rocha. **LG Electronics (LGE)**.
- (2010–2014) *Digital forensics: collection, organization, classification and analysis of digital evidences*. **Coordinator**: Prof. Dr. Anderson Rocha. **São Paulo Research Foundation (FAPESP)** Young Investigators Awards.
- (2012-2014) *Pattern Recognition and Classification by Means of Feature Engineering, *-Fusion, Open-set Recognition and Machine Learning Meta-Recognition*. **Coordinator**: Prof. Dr. Anderson Rocha. **Samsung Electronics**.
- (2012-2014) *Reverse Engineering of Audio-Visual Content Data (Rewind)*. **Multinational Research Project – Brazilian Coordinator**: Prof. Dr. Anderson Rocha.. **General Coordinator**: Prof. Dr. Stefano Tubaro, Politecnico di Milano. **Seventh Framework Programme – European Union**.
- (2012-2013) *IEEE Information Forensics and Technical Committee Image Forgery Detection Challenge*. **Coordinator**: Prof. Dr. Anderson Rocha. **IEEE Signal Processing Society**.
- (2016-2016) *Open-set Human Activity Recognition and Assessment*. International Visiting Scholar Program. **Coordinator**: Prof. Dr. Anderson Rocha. **FAPESP**.

Concluded as an Associate Researcher

1. (2013-2016) *Anotação de Imagem em Grandes Bases de Dados*. **Coordinator:** Prof. Dr. Alexandre Xavier Falcão. **National Counsel of Technological and Scientific Development (CNPq)**, Universal Project.
2. (2013-2016) *VER+: Metodologias Robustas e Eficientes para Vigilância*. **Coordinator:** Prof. Dr. William Robson Schwartz. **National Counsel of Technological and Scientific Development (CNPq)** Universal Project.
3. (2013-2015) *ExaMind: Large-Scale Retrieval, Classification and Visualization of Complex Data using High Performance Techniques*. **Coordinator:** Prof. Dr. Ricardo da Silva Torres. **National Counsel of Technological and Scientific Development (CNPq)**, Universal Project.
4. (2012-2014) *Vision for the Blind: Translating 3D Visual Concepts into 3D Auditory Clues*. **Coordinator:** Prof. Dr. Siome Klein Goldenstein. **São Paulo Research Foundation (FAPESP) and Microsoft Inc.**, Regular Research Awards.
5. (2010-2012) *Large-scale classification and retrieval for complex data*. **Coordinator:** Prof. Dr. Ricardo da Silva Torres. **São Paulo Research Foundation (FAPESP)**, Regular Research Awards.
6. (2009-2011) *Automated screening for diabetic retinopathy: it in the fight against preventable blindness*. **Coordinator:** Prof. Dr. Jacques Wainer. **São Paulo Research Foundation (FAPESP) and Microsoft Inc.**, Regular Research Awards.

Administrative Services

- (As of 2014) Director of the Reasoning for Complex Data Lab. (RECOD), Institute of Computing, University of Campinas (IC/Unicamp);
- (2014/2016) Head of the Information Systems Department, Institute of Computing, University of Campinas (DSI/IC/Unicamp).

Public Services

Editorial Board

- (As of 2016) Associate Editor of IEEE Security & Privacy Magazine (SP-CS);
- (As of 2014) Associate Editor of IEEE Transactions on Information Forensics and Security (T.IFS);
- (As of 2013) Associate Editor of Elsevier Journal of Visual Communication and Image Representation (JVCI);
- (2014-2015) Lead Guest Editor of EURASIP/Springer Journal on Image and Video Processing (JIVP).

Technical Committees

- (As of 2016) Associate Member of the IEEE Information Forensics and Security Technical Committee (IFS-TC), Second Term;
- (2013-2015) Image Processing and Computer Vision representative for the Brazilian Commission on Image Processing, Machine Learning, Computer Graphics, and Computer Vision (SBC/CEGRAPI).
- (2011-2014) Associate Member of the IEEE Information Forensics and Security Technical Committee (IFS-TC);

Supervisions

Concluded

- Postdoc in Computer Science
 1. Siovani Cintra Felipussi. 2015-2016. **Funding:** CAPES.
 2. Alexandre Melo Ferreira. 2015-2016. **Funding:** LG Electronics.
 3. Sandra Eliza Fontes de Avila. 2013-2016. **Funding:** Samsung Electronics – 2014/2015; Microsoft Research, 2016.
 4. Marina Atsumi Oikawa. 2013-2016. **Funding:** European Union – 2013/2014; FAPESP – 2014/2016.
 5. Luciene Cristina Alves Rinaldi. 2015-2015. **Funding:** LG Electronics.
 6. Otávio Penatti. 2012-2013. **Funding:** Samsung Electronics.
 7. Giovanni Chiachia. 2013-2014. **Funding:** FAPESP.
- Ph.D. in Computer Science
 1. Daniel Henriques Moreira. *Sensitive-Video Analysis* (2016). PhD. Thesis – Institute of Computing, University of Campinas. **Advisor:** Anderson Rocha. **Co-Advisor:** Siome Goldenstein. **Funding:** Samsung Electronics.
 2. Filipe de Oliveira Costa. *Image and Video Phylogeny Reconstruction* (2016). PhD. Thesis – Institute of Computing, University of Campinas. **Advisor:** Anderson Rocha. **Co-Advisor:** Zanoni Dias. **Funding:** FAPESP.

3. Anselmo Castelo Branco. *Multi-Analysis Techniques for Digital Image Forensics* (2016). PhD. Thesis – Institute of Computing, University of Campinas. **Advisor:** Anderson Rocha. **Co-Advisor:** Jefferson Alex dos Santos. **Funding:** CNPq.
 4. Tiago José de Carvalho. *Illumination Inconsistency Sleuthing for Exposing Fauxtopography and Uncovering Composition Telltales in Digital Images* (2014). PhD. Thesis – Institute of Computing, University of Campinas. **Advisor:** Anderson Rocha. **Co-Advisor:** Hélio Pedrini. **Funding:** CAPES.
 5. Fabio Augusto Faria. *A Framework for Pattern Classifier Selection and Fusion* (2014). PhD. Thesis – Institute of Computing, University of Campinas. **Advisor:** Ricardo da Silva Torres. **Co-Advisor:** Anderson Rocha. **Funding:** FAPESP.
 6. Giovanni Chiachia. *Learning Person-Specific Face Representations* (2013). PhD. Thesis – Institute of Computing, University of Campinas. **Advisor:** Alexandre X. Falcão. **Co-Advisor:** Anderson Rocha. **Funding:** FAPESP.
 7. Erikson Freitas de Moraes. *Rastreamento de Jogadores de Futebol de Salão Usando Filtro de Partículas e Coordenadas no Plano da Quadra* (2012). PhD. Thesis – Institute of Computing, University of Campinas. **Advisor:** Siome Klein Goldenstein. **Co-Advisor:** Anderson Rocha. **Funding:** CNPq.
- Masters in Computer Science
 1. Maurício Lisboa Perez. *Video pornography detection through deep learning techniques and motion information* (2016). MSc. Thesis – Institute of Computing, University of Campinas. **Advisor:** Anderson Rocha. **Co-Advisor:** Vanessa Testoni. **Funding:** Samsung Electronics.
 2. Alberto Arruda de Oliveira. *Multiple Parenting Relations in Image Phylogeny* (2015). MSc. Thesis – Institute of Computing, University of Campinas. **Advisor:** Anderson Rocha. **Funding:** CAPES/FAPESP.
 3. Thiago Cavalcante. *Authorship Attribution on Micro-Messages* (2014). MSc. Thesis – Institute of Computing, University of Campinas. **Advisor:** Ariadne Maria Brito Rizzoni Carvalho. **Co-Advisor:** Anderson Rocha. **Funding:** CAPES.
 4. Rafael de Oliveira Werneck. *A unified framework for design, deployment, execution, and recommendation of machine learning experiments* (2014). MSc. Thesis – Institute of Computing, University of Campinas. **Advisor:** Ricardo da Silva Torres. **Co-Advisor:** Anderson Rocha. **Funding:** Samsung Electronics.
 5. Pedro Ribeiro Mendes Jr. *Open-set Optimum-Path Forest Classifier* (2014). MSc. Thesis – Institute of Computing, University of Campinas. **Advisor:** Anderson Rocha. **Co-Advisor:** Ricardo da Silva Torres. **Funding:** Samsung Electronics.
 6. Daniel Bastos Moraes. *Low False Positive Learning with Support Vector Machines* (2014). MSc. Thesis – Institute of Computing, University of Campinas. **Advisor:** Anderson Rocha. **Co-Advisor:** Jacques Wainer. **Funding:** CNPq.
 7. Allan da Silva Pinto. *A Countermeasure Method for Video-Based Face Spoofing Attacks* (2013). MSc. Thesis – Institute of Computing, University of Campinas. **Advisor:** Anderson Rocha. **Funding:** CNPq.
 8. Junior Fabian Arteaga. *Searching for People Through Textual and Visual Attributes* (2013). MSc. Thesis – Institute of Computing, University of Campinas. **Advisor:** Anderson Rocha. **Funding:** CNPq.
 9. José Ramon Trindade Pires. *Diabetic retinopathy image quality assessment, detection, screening and referral* (2013). MSc. Thesis – Institute of Computing, University of Campinas. **Advisor:** Anderson Rocha. **Funding:** FAPESP.
 10. Filipe de Oliveira Costa. *Atribuição de fonte em imagens provenientes de câmeras digitais*. (2012). MSc. Thesis – Institute of Computing, University of Campinas. **Advisor:** Anderson Rocha. **Funding:** FAPESP.
 11. Ewerton Almeida Silva. *Identificação de Manipulações de Cópia-Colagem em Documentos Digitais* (2012). MSc. Thesis – Institute of Computing, University of Campinas. **Advisor:** Anderson Rocha. **Funding:** FAPESP.
 12. Erik Keiji Tokuda. *Projeto e Desenvolvimento de Técnicas Forenses para Identificação de Imagens Sintéticas* (2012). MSc. Thesis – Institute of Computing, University of Campinas. **Advisor:** Hélio Pedrini. **Co-Advisor:** Anderson Rocha. **Funding:** FAPESP.
 13. Antoine Barrault. *Banknotes detection for visually impaired people* (2011). MSc. Thesis – Institute of Computing, University of Campinas. In conjunction with the Faculté des Sciences et Techniques – Université de Limoges, France. **Advisor:** Benoit Crispin. **Co-Advisor:** Anderson Rocha. **Funding:** French Government.
 - Scientific Initiation
 1. Victor Accarini. *Speaking snippet classification in broadcasts*. 2016. **Advisor:** Anderson Rocha..
 2. David Gutierrez Arias. *Image Descriptors for Matching and Retrieval*. 2015. **Advisor:** Anderson Rocha..
 3. Isabela da Silva Rodrigues Cota. *Crowd image classification*. 2014-2015. **Advisor:** Anderson Rocha.
 4. Vinicius Felizardo. *Evaluation of skin detection techniques applied to sensitive media filtering*. 2014-2014. **Advisor:** Anderson Rocha.

5. Guilherme Duarte Marmerola. *Design and development of text phylogeny techniques*. 2013 to 2014. **Advisor:** Anderson Rocha. **Co-Advisor:** Zaroni Dias.
6. William Dias. *On-the-fly multi-class classification and novelty detection*. 2013 to 2014. **Advisor:** Anderson Rocha.
7. Bernardo Vecchia Stein. *Pattern Recognition and Classification by Means of Feature Engineering, *-Fusion*, 2012 to 2014. **Advisor:** Anderson Rocha. **Co-Advisor:** Ricardo da Silva Torres.
8. Konrad Ilczuk. *On-the-fly multi-class classification and novelty detection*. 2013 to 2014. **Advisor:** Anderson Rocha.
9. Waldir Rodrigues de Almeida. *Pattern Recognition and Classification by Means of Feature Engineering, *-Fusion*, 2012 to 2013. **Advisor:** Ricardo da Silva Torres. **Co-Advisor:** Anderson Rocha.
10. Daniel Vatanabe Pazinato. *Análise e Classificação de Estenoses Carotídeas por Imagens de Ultrassonografia Duplex*, 2012 to 2013. **Advisor:** Anderson Rocha. **Co-Advisor:** Fabio Menezes.
11. Giuliano Roberto Pinheiro. *Printer Attribution*, 2011 to 2013. **Advisor:** Anderson Rocha.
12. John Henrique Teixeira de Godoi. *Bloodstain classification using Computer Vision and Machine Learning Techniques*. 2012. **Advisor:** Anderson Rocha. **Co-Advisor:** Marcos Gonçalves Quiles.

- Monograph

1. Victor Accarini. *Speaking snippet classification in broadcasts*. Computer Science – Institute of Computing (IC), University of Campinas.
2. Vinicius Felizardo. *Evaluation of skin detection techniques applied to sensitive media filtering*. Computer Science – Institute of Computing (IC), University of Campinas.
3. John Henrique Teixeira de Godoi. *Segmentação de Manchas de Sangue em Fotografias Digitais*. 2013. Computer Science – Institute of Science and Technology (ICT) - Federal University of São Paulo.
4. André Cesarino de Paula. *Atribuição de Fonte para Imagens Digitais Capturadas por Scanners*. 2012. Computer Science – Institute of Computing, University of Campinas.
5. Claudia da Silva Kouri. *Esteganografia Digital: o estudo da arte de esconder informações*. 2008. Bacharelado em Sistemas de Informação – Federal University of Acre.
6. Richard Joaquim de Oliveira Prazeres. *Desenvolvimento de um software de esteganografia robusto a ataques geométricos*. 2005. Bacharelado em Sistemas de Informação – Universidade do Grande Rio.

Ongoing

- Postdoc

1. Alexandre Melo Ferreira. As of 2016. **Funding:** CAPES.
2. Fernanda Alcântara Andaló. As of 2015. **Funding:** Motorola.

- PhD.

1. Hilário Seibel Jr. (PhD. co-supervision) – Expected Conclusion: March, 2017. **Funding:** CAPES.
2. José Ramon Trindade Pires (PhD. supervision) – Expected Conclusion: September, 2017. **Funding:** Samsung Electronics.
3. Allan da Silva Pinto (PhD. supervision) – Expected Conclusion: December, 2017. **Funding:** CAPES.
4. Pedro Ribeiro Mendes Jr. (PhD. supervision) – Expected Conclusion: December, 2017. **Funding:** CAPES.
5. Alberto Arruda de Oliveira. (PhD. supervision) – Expected Conclusion: March, 2018. **Funding:** FAPESP.
6. Cristina Cavalcante. (PhD. supervision) – Expected Conclusion: December, 2018. **Funding:** UNISIM/FEM/Unicamp.
7. Bruno Malveira Peixoto. (PhD. supervision) – Expected Conclusion: July, 2019. **Funding:** CAPES.

- MSc.

1. Geise Kelly da Silva Santos. (MSc. supervision) – Expected Conclusion: July, 2016. **Funding:** CAPES.
2. Guilherme Adriano Fôlego. (MSc. supervision) – Expected Conclusion: December, 2017. **Funding:** CPqD.
3. Waldir Rodrigues de Almeida. (MSc. supervision) – Expected Conclusion: December, 2017. **Funding:** Motorola.
4. Lucas Oliveira David. (MSc. supervision) – Expected Conclusion: March, 2018. **Funding:** CNPq.
5. William Marques Dias. (MSc. supervision) – Expected Conclusion: March, 2018. **Funding:** TBA.

- Scientific Initiation (Undergrads)

1. Gabriel Bertocco. **Funding:** Motorola. As of 2015.
2. Isabela Telles. As of 2016.
3. Isadora Sophia. As of 2016.

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