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EDUCATION	University of Brasília , Brasília, DF June 2009 <i>Doctor's degree</i> , Electrical Engineering <ul style="list-style-type: none">• Advisor: Dr. Ricardo Lopes de Queiroz• Dissertation: Compound Documents Compression Using H.264• Area: Digital Image Processing
	University of Brasília , Brasília, DF August 2004 <i>Master's degree</i> , Computer Science and Engineering <ul style="list-style-type: none">• Advisor: Francisco Assis de O. Nascimento• Thesis: Compression of Medical Imagens Using Local SNR Constraints• Area: Digital Images Processing and Computational Intelligence
	Federal University of Rio de Janeiro , Rio de Janeiro, RJ June 2002 <i>Engineer's degree</i> , Electronics Engineering <ul style="list-style-type: none">• Advisor: Dr. Luiz Pereira Calôba• Monograph: Bacteria Classification Using Artificial Neural Networks• Area: Digital Images Processing and Computational Intelligence
	Colégio de São Bento , Rio de Janeiro, RJ December 1995 <i>High School</i>
PROFESSIONAL EXPERIENCE	University McGill , Montréal, QC January 2017 – January 2018 <i>Visiting Professor</i> Department of Electrical and Computer Engineering
	University of Brasília , Brasília, DF June 2009 – Present <i>Associate Professor (Adjunto IV)</i> Department of Computer Science Admitted by public exam in the Brazilian public university system
	University of Brasília , Brasília, DF 2006 – 2007 <i>Research Associate</i> Department of Electrical Engineering Research
	University of Brasília , Brasília, DF 2004 – 2006 <i>Substitute Professor</i> Department of Electrical Engineering Research
	Faculdade Jesus Maria José , Taguatinga, DF 2004 – 2009 <i>Lecturer</i> Systems Analysis and Development Computer Networks
	AD1 , Ceilândia, DF 2004 <i>Lecturer</i> Web Systems Development Data Processing
	FAPEU , Rio de Janeiro, RJ 1997 – 1999 <i>Programmer Intern</i>

**RESEARCH
INTERESTS**

Current research interests include, but are not limited to Digital Image and Video Processing, Computational Intelligence and Biometric Systems.

**JOURNAL
PUBLICATIONS**

ZAGHETTO, C.; AGUIAR, L. H. M.; ZAGHETTO, A.; RALHA, C. G.; VIDAL, F. B., Agent-based framework to individual tracking in unconstrained environments. *Expert Systems with Applications*, v.87, p.118 - 128, 2017.

RALHA, C. G.; ABREU, C. G.; COELHO, C. G. C.; ZAGHETTO, A.; MACCHI-
AVELLO, B. L. E.; MACHADO, R. B., A multi-agent model system for land-use
change simulation. *Environmental Modelling & Software*, v. 42, p. 30-46, 2013.

ZAGHETTO, A.; de QUEIROZ, R. L., Scanned Document Compression Using a Block-
based Hybrid Video Codec. *IEEE Transactions on Image Processing*, vol. 22, no. 6,
pp. 2420-2428, 2013.

ZAGHETTO, A.; de QUEIROZ, R. L., Pre- and post-processing for multilayer com-
pression of scanned documents. *Journal of Electronic Imaging (Print)*, v. 20, no. 4 p.
043005, 2011.

ZAGHETTO, A.; de QUEIROZ, R. L., Segmentation-driven Compound Document
Coding Based on H.264/AVC-INTRA. *IEEE Transactions on Image Processing*, v. 16,
no. 7, p. 1755-1760, 2007.

**SELECTED
CONFERENCE
PAPERS**

ZAGHETTO, C. ; MENDELSON, M.; ZAGHETTO, A.; VIDAL, F. B. . Liveness
Detection on Touchless Fingerprint Devices Using Texture Descriptors and Artificial
Neural Networks. In: *IJCB 2017: International Joint Conference on Biometrics, 2017*,
Denver. *Proceedings of the International Joint Conference on Biometrics 2017*, 2017.

FRANCO, P. S. ; SANDOVAL, D. A. M. ; ZAGHETTO, A. ; MACCHIAVELLO, B.
; ZAGHETTO, C. . Touchless-to-touch Fingerprint Systems Compatibility Method.
In: *2017 IEEE International Conference on Image Processing, 2017, Beijing, China*.
Proceedings of the 2017 IEEE International Conference on Image Processing, 2017.

ZAGHETTO, A.; ZAGHETTO, C. ; AGUIAR, L. H. M. ; MENDELSON, M. ; VIDAL,
F. B. . Facial Biometrics Using SIFT/SURF in Comparison to Eigenfaces. In: *XIII
Workshop de Visão Computacional, 2017, Natal, Rio Grande do Norte. A ser publicado
nos Anais do XIII Workshop de Visão Computacional., 2017*.

AGUIAR, L. H. M. ; ZAGHETTO, A. ; ZAGHETTO, C. ; VIDAL, F. B. ; RALHA,
C. G. . Dimiourgos: Agent-based simulation for the Analysis of Camouflage evolu-
tion in Living Beings. In: *XII Simpósio Brasileiro de Sistemas de Informação, 2016*,
Florianópolis. *Anais do XII Simpósio Brasileiro de Sistemas de Informação, 2016*.

VIZCARRA MELGAR, M. E. ; ZAGHETTO, A. ; FARIAS, M. C. Q. ; VIDAL, F.
B. . A High Density Colored 2D-Barcode: CQR Code-9. In: *SIBGRAPI 2016 - XXIX
Conference on Graphics, Patterns and Images, 2016, São José dos Campos, São Paulo*.
Anais do SIBGRAPI 2016, 2016.

VIZCARRA MELGAR, M. E. ; FARIAS, M. C. Q. ; ZAGHETTO, A. . An evaluation
of the effect of JPEG, JPEG2000, and H.264/AVC on CQR codes decoding process.
In: *IS&T/SPIE Electronic Imaging, 2015, San Francisco*. p. 94040Q.

ZAGHETTO, C. ; ZAGHETTO, A. ; VIDAL, F. B. ; AGUIAR, L. H. M. . Touchless
multiview fingerprint quality assessment: rotational bad-positioning detection using
Artificial Neural Networks. In: *2015 International Conference on Biometrics (ICB),
2015, Phuket. 2015 International Conference on Biometrics (ICB)*. p. 394.

ZAGHETTO, C. ; ZAGHETTO, A. ; VIDAL, F. B. ; AGUIAR, L. H. M. . Design and Implementation of an Artificial Neural Network Applied to Finger Bad-positioning Detection on Touchless Multiview Fingerprints Devices. In: XI Simpósio Brasileiro de Sistemas de Informação, 2015, Goiânia. Anais do XI Simpósio Brasileiro de Sistemas de Informação, 2015.

RAMOS, L. C. ; ZAGHETTO, A. ; VIDAL, F. B. ; MACCHIAVELLO, B. . A Real-time Approach for Hand-gesture Recognition Based on Computer Vision and Artificial Neural Network. In: Workshop de Visão Computacional, 2014, Ubersândia. Anais do X Workshop de Visão Computacional, 2014.

OLIVEIRA, V. C. ; SILVA, H. L. A. ; ZAGHETTO, A. ; MACCHIAVELLO, B. L. E. ; LAMAR, M. V. . Implementation of the Rock-Paper-Scissors-Lizard-Spock Game using K-means and Artificial Neural Network-based Gesture Recognition. In: XIII Simpósio Brasileiro de Jogos e Entretenimento Digital, 2014, Porto Alegre. Proceedings do XIII Simpósio Brasileiro de Jogos e Entretenimento Digital, 2014.

VIZCARRA MELGAR, M. E. ; ZAGHETTO, A. ; FARIAS, M. C. Q. . Análisis de Decodificación de CQR Codes en Compresión JPEG. In: INTERCON 2013, 2013, Trujillo. Anais do XX International Congress of Electronic, Electrical and Systems Engineering, 2013.

PEIXOTO, E. ; MACCHIAVELLO, B. L. E. ; HUNG, E. M. ; ZAGHETTO, A. ; SHANABLEH, T. ; IZQUIERDO, E. . An H.264/AVC to HEVC video transcoder based on mode mapping. In: 2013 20th IEEE International Conference on Image Processing (ICIP), 2013, Melbourne. 2013 IEEE International Conference on Image Processing. p. 1972.

VIZCARRA MELGAR, M. E. ; ZAGHETTO, A. ; NASCIMENTO, A. C. A. ; MACCHIAVELLO, B. L. E. . Implementación y Lectura de QR Codes con Cinco Colores y 1024 bits. In: Congreso Internacional de Ingeniería Electrónica, Eléctrica, Informática y Ramas Afines, 2012, Lima. Anais do Congreso Internacional de Ingeniería Electrónica, Eléctrica, Informática y Ramas Afines, 2012.

Tada, Carlos ; Zaghetto, Alexandre ; Macchiavell, Bruno . Fingerprint Image Quality Estimation Using a Fuzzy Inference System. In: The Seventh International Conference on Forensic Computer Science, 2012. Proceedings of the Seventh International Conference on Forensic Computer Science. p. 41-45.

VIZCARRA MELGAR, M. E. ; Zaghetto, Alexandre ; MACCHIAVELLO, B. L. E. ; NASCIMENTO, A. C. A. . CQR codes: Colored quick-response codes. In: 2012 IEEE Second International Conference on Consumer Electronics Berlin (ICCEBerlin), 2012, Berlin. 2012 IEEE Second International Conference on Consumer Electronics - Berlin (ICCE-Berlin). p. 321-325.

ZAGHETTO, A.; MACCHIAVELLO, B. L. E. ; de QUEIROZ, R. L. . HEVC-based scanned document compression. In: 2012 19th IEEE International Conference on Image Processing (ICIP 2012), 2012, Orlando. 2012 19th IEEE International Conference on Image Processing.

ZAGHETTO, A.; SILVA NETO, M. J. ; CHAVES, A. C. M. ; MOREIRA, N. F. ; VIDAL, F. B. . Classificação de Madeiras Amazônicas Utilizando o Módulo de Young e Redes Neurais Artificiais. In: Brazilian Conference on Intelligent System, 2012, Curitiba. Proc. of Brazilian Conference on Intelligent System, 2012.

VIZCARRA MELGAR, M. E.; ZAGHETTO, A. ; NASCIMENTO, A. C. A. . Implementación y Lectura de QR Codes con Cinco Colores y 512 bits. In: XVIII International Congress of Electronic, Electrical and Systems Engineering, 2011, Lima,

Peru. Anais do XVIII International Congress of Electronic, Electrical and Systems Engineering. Lima, Perú, 2011.

FRANCISCO, NELSON C. ; Zaghetto, Alexandre ; MACCHIAVELLO, B. L. E. ; DA SILVA, EDUARDO A. B. ; LIMA-MARQUES, MAMEDE ; RODRIGUES, NUNO M. M. ; DE FARIA, SERGIO M. M. . Compression of touchless multiview fingerprints. In: 2011 IEEE Workshop on Biometric Measurements and Systems for Security and Medical Applications (BIOMS), 2011, Milan. 2011 IEEE Workshop on Biometric Measurements and Systems for Security and Medical Applications (BIOMS).

ZAGHETTO, A.; de QUEIROZ, R. L. . High quality scanned book compression using pattern matching. In: 2010 17th IEEE International Conference on Image Processing (ICIP 2010), 2010, Hong Kong. 2010 IEEE International Conference on Image Processing.

COSTA, M.V.C. ; CARVALHO, J.L.A. ; BERGER, P.A. ; ZAGHETTO, A. ; DA ROCHA, A.F. ; NASCIMENTO, F.A.O. . Two-dimensional compression of surface electromyographic signals using column-correlation sorting and image encoders. In: 2009 Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2009, Minneapolis. 2009 Annual International Conference of the IEEE Engineering in Medicine and Biology Society. p. 428-431.

ZAGHETTO, A.; de QUEIROZ, R. L. . Document Compression Using H.264/AVC. In: XXII Brazilian Symposium on Computer Graphics and Image Processing (SIBGRAPI 2009), 2009, Rio de Janeiro. Proceedings of XXII Brazilian Symposium on Computer Graphics and Image Processing (SIBGRAPI 2009). Rio de Janeiro: Sociedade Brasileira de Computação, 2009.

ZAGHETTO, A.; de QUEIROZ, R. L. . Improved layer processing for MRC compression of scanned documents. In: 2009 16th IEEE International Conference on Image Processing ICIP 2009, 2009, Cairo. 2009 16th IEEE International Conference on Image Processing (ICIP).

ZAGHETTO, A.; de QUEIROZ, R. L. . Iterative pre- and post-processing for MRC layers of scanned documents. In: , 2008, San Diego. . p. 1009-1012.

ZAGHETTO, A.; de QUEIROZ, R. L. ; MUKHERJEE, D. . MRC Compression of Compound Documents Using Threshold Segmentation, Iterative Data-filling and H.264/AVC-INTRA. In: Indian Conference on Computer Vision, Graphics and Image Processing, 2008, Bhubaneswar, Orissa. Proceedings of Indian Conference on Computer Vision, Graphics and Image Processing, 2008.

ZAGHETTO, A.; de QUEIROZ, R. L. . MRC Compression of Compound Documents using H.264/AVC-I. In: XXV Simpósio Brasileiro de Telecomunicações, 2007, Recife. Anais do XXV Simpósio Brasileiro de Telecomunicações. Rio de Janeiro - RJ: Sociedade Brasileira de Telecomunicações, 2007.

ZAGHETTO, A.; de QUEIROZ, R. L. . Using H.264/AVC-Intra for Segmentation-Driven Compound Document Coding. In: , 2007, San Antonio. .

ZAGHETTO, A.; de QUEIROZ, R. L. ; ORTIS, R. S. ; FONSECA, T. A. . Fringe Benefits of the H.264/AVC. In: International Telecommunications Symposium, 2006, Fortaleza. Proceedings of the International Telecommunications Symposium, 2006. p. 208-212.

ZAGHETTO, A.; NASCIMENTO, F. A. O. ; dos SANTOS, I. ; DA ROCHA, A. F. . Coding of Echocardiographic Image by Selection of the Normalization Matrix Using Fuzzy Logic. In: 2006 International Conference of the IEEE Engineering in Medicine

and Biology Society, 2006, New York. 2006 International Conference of the IEEE Engineering in Medicine and Biology Society. v. 1. p. 1089-1092.

SUPERVISED WORKS

Master Thesis

Mateus Mendelson Esteves da Silva. Transport Mode Identification (in Portuguese). To be concluded in March, 2018. (Master's in Mechatronics Engineering).

Luiz Henrique Morais Aguiar. Evolutionary Model of Camouflage Adaptation in Virtual Organisms (in Portuguese). 2016. (Master's in Mechatronics Engineering).

Drausio Gomes dos Santos. Implementation of a Geocatalogue to Assist Location and Recovery of Open Geographic Data (in Portuguese). 2016. (Master's in Applied Computing).

Carlos Henrique Moniwa Tada. Fingerprint Image Quality Estimation Using a Fuzzy Inference System (in Portuguese). 2011. (Master's in Electrical Engineering).

Specialization

Cláudio Heringer. Analysis of Information Security Management in IT Contracts of Public Organizations (in Portuguese). 2014. (Specialization in Information Security Management).

Undergraduation

Matheus Rosendo Pedreira. Quality Assurance of Digital Portraits Acquired using a Mobile Device (in Portuguese). 2016. (Computer Engineering).

Marcelo André Winkler. Estimation of Mobile Devices' Keyboard Position in Videos Captured by Surveillance Cameras (in Portuguese). 2016. . (Computer Engineering).

Lécio Pery Júnior. Photographic Touchless Fingerprinting Matching Using Filter-bank Representations (in Portuguese). 2016. (Computer Engineering).

Vitor de Alencastro Lacerda. Detection and Monitoring of Available Parking Spots using Digital Image Processing (in Portuguese). 2016. (Computer Science).

Sinayra Pascoal Cotts Moreira. palyAPC: Development of a Didactic Graphic Library for the Algorithms and Computer Programming Course (in Portuguese). 2016. (Computer Science).

Filipe Alves Caixeta. Design and Implementation of a Computer Numerical Control (CNC) Machine Web Simulator (in Portuguese). 2016. (Mechatronics Engineering).

Gustavo Monteiro Meneses. Automatic Coin Counter Using Artificial Neural Networks (in Portuguese). 2016. (Computer Engineering).

Luiz Fernando de Andrade Gadêlha. Proposta de Curso Prático em Algoritmos e programação de Computadores Utilizando a Placa Intel Galileo. 2016. (Mechatronics Engineering).

Mateus Mendelson Esteves da Silva. Spoofing Detection on Touchless Fingerprint Devices Using Texture Descriptors and Artificial Neural Networks (in Portuguese). 2015. (Computer Engineering).

Pedro Salum Franco. Touchless-to-touch Fingerprint Systems Compatibility Method (in Portuguese). 2014. (Computer Engineering).

Daniel Assad Maia Sandoval. Method for Automatic Nude Detection in Digital Images Using Artificial Neural Networks (in Portuguese). 2014. (Computer Engineering).

Jaime Cândido Dourado Alves. Compression of DNA Sequences Using Video Encoding Techniques (in Portuguese). 2014. (Computer Science).

Igor Pessoa Rocha. Indexing and textual references: a Case Study with Tool Implementation for the National Program of Space Activities (Programa Nacional de Atividades Espaciais) (in Portuguese). 2014. (Computer Science).

Daniel Dutra Andrino & Vinícius Alves Rodrigues. Identification of Monuments in Brasilia Using Image Processing and Artificial Neural Networks (in Portuguese). 2013. (Computer Science).

Hesddras Franco Gomes. Modeling the Flow of Customers in Commercial Establishments Using Artificial Neural Networks (in Portuguese). 2013. (Electrical Engineering).

Max Eduardo Vizcarra Melgar. Design and Implementation of Colored QR Codes (in Portuguese). 2011. (Computer Networks Engineering).

Tiago Ramalho Melo. Method for Embedding Voice in Digital Image Textures (in Portuguese). 2011. (Computer Science).

Daniel Brito Moussallem de Andrade. Musical Synthesis using Gesture Recognition (in Portuguese). 2011. (Electrical Engineering).

Luan Caius Ramos. Gesture Recognition Using Artificial Neural Networks (in Portuguese). 2011. (Mechatronics Engineering).

Tiago Ramalho Melo & Sérgio Campos Santana. Joint Voice and Video Coding (in Portuguese). 2010. (Computer Science Pedagogy).

Debora Regina Drumond de Macedo. H.264/AVC Intra-based Still Image Coder (in Portuguese). 2007. (Electrical Engineering).

Karina Mahon Mattar. Implementation of Digital Signal Processing Algorithms using the TMS320C6711 (in Portuguese). 2006. (Electrical Engineering).

Undergraduate research

Sinayra Pascoal Cotts Moreira. Computer Graphics as a Supporting Tool for Algorithms and Computer Programming Courses. 2016. (Computer Science).

Rodrigo Ferreira Guimarães. Conversion of Paintings into Mechanical Stimuli for People who are Blind. 2016. (Computer Engineering).

Gildo Rodrigues da Silva Junior. Text Segmentation. 2015. (Mechatronics Engineering).

Luiz Henrique Morais Aguiar. Camouflage Evolution Simulation. 2014. (Computer Science).

Eric de Menezes Torlig. Noise Reduction in Images Generated by Nudity Detection Algorithms. 2013. (Mechatronics Engineering).

Pedro Henrique Hecksher Faber. Nudity Detection. 2013. (Mechatronics Engineering).

Pedro Salum Franco. Image Similarity Analysis. 2012. (Computer Engineering).

Daniel Assad Maia Sandoval. Geometric Distortion and Texture Enhancement in Touchless Fingerprints. 2012. (Computer Engineering).

Natália Figueiredo Moreira. Automatic Identification of Commercial Brazil Timber. 2012. (Computer Engineering).

Mariana Nunes de Oliveira. Content Segmentation and Coding in Video Surveillance Systems. 2012. (Computer Engineering).

Luan Caius Ramos. Artificial Neural Networks Applied to Real Time Hand Gestures Identification. 2011. (Mechatronics Engineering).

Willian de Oliveira Barreiros Junior. Compound Documents Segmentation. 2010. (Computer Engineering).

RECEIVED HONORS

University of Brasília

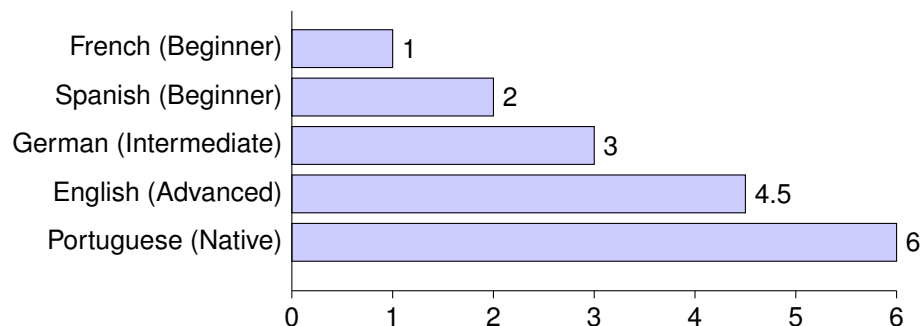
2016/02 Term, Computer Engineering, Honored Professor
2015/02 Term, Computer Engineering, Commencement Speake.
2015/02 Term, Computer Engineering, Patron
2015/02 Term, Computer Engineering, Honored Professor
2015/01 Term, Mechatronics Engineering, Honored Professor
2015/01 Term, Computer Engineering, Honored Professor
2014/01 Term, Computer Engineering, Commencement Speaker

FAJESU

2009/01 Term, System Analysis and Development, Honoured Prodessor
2007/02 Term, Computer Networks, Commencement Speaker

NATIONALITY Brazilian citizen, born on July 14, 1977.

LANGUAGES



**ADDITIONAL
INFORMATION**

ResearchGate: <https://goo.gl/qjKwGo>

Google Scholar: <https://goo.gl/LikGxi>

LinkedIn: <https://www.linkedin.com/in/zaghetto/>

Personal Webpage: <http://alexandre.zaghetto.com>