

CURRICULUM VITAE

Maurício Pamplona Segundo

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Present Address

Instituto de Matemática, sala 214
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EDUCATION

Doctor of Science, Computer Science December 2013
Institution: Federal University of Paraná, Curitiba/PR, Brazil
Thesis: Real-time 3D Face Recognition using Low-cost Devices
Fellowship: CAPES - Coordination for the Improvement of Higher Education Personnel
CNPq - National Council of Technological and Scientific Development

Master of Science, Informatics March 2010
Institution: Federal University of Paraná, Curitiba/PR, Brazil
Dissertation: Face Segmentation and Facial Features Detection in Range Images
Fellowship: CAPES - Coordination for the Improvement of Higher Education Personnel

Bachelor of Science, Computer Science March 2008
Institution: Federal University of Paraná, Curitiba/PR, Brazil
Monograph: Face Segmentation in Range Images
Fellowship: CNPq - National Counsel of Technological and Scientific Development

EXPERIENCE

Federal University of Bahia (UFBA) **Professor**
Department of Computer Science March 2014 - present

- Teaching: Algorithms, Computer Vision
- Research & Development: Biometric recognition, robot soccer
- Academic Extension: Coach in Programming Contests and Robocode competitions

University of South Florida (USF) **Visiting research scholar**
Computer Vision and Pattern Recognition Group August 2012 - August 2013

- Research & Development: Continuous 3D face authentication, 3D surface strain estimation.

United Nations Educational, Scientific and Cultural Organization (UNESCO) **Fellow**
Congonhas Museum July 2012 - December 2012

- Research & Development: Digitization and 3D reconstruction of cultural heritage objects.

Federal University of Paraná (UFPR) **Research & Development**
IMAGO Research Group June 2005 - December 2013

- Continuous 3D face authentication, 3D face recognition, recognition of dermatoglyphic patterns, 2D face recognition in video.
- Automation of object digitization and reconstruction processes through computer vision.
- Accessibility tools for social inclusion: screen magnifier, gaze detector for cursor control.

PUBLICATIONS

- Conference:** G. Dahia, M. Santos and M. Pamplona Segundo, "A study of cnn outside of training conditions", *IEEE International Conference on Image Processing*, 2017.
- Workshop:** M. Pamplona Segundo and R. P. Lemes, "Pore-based ridge reconstruction for fingerprint recognition", *IEEE Conference on Computer Vision and Pattern Recognition Workshops*, 2015.
- Conference:** R. P. Lemes, M. Pamplona Segundo, O. R. P. Bellon and L. Silva, "Dynamic Pore Filtering for Keypoint Detection Applied to Newborn Authentication", *IEEE International Conference on Pattern Recognition*, 2014.
- Journal:** M. Shreve, M. Pamplona Segundo, T. Luguev, D. Goldgof and S. Sarkar, "High-resolution 3D surface strain magnitude using 2D camera and low-resolution depth sensor", *Pattern Recognition Letters*, 2014.
- Journal:** M. Pamplona Segundo, L. Silva, O. R. P. Bellon and S. Sarkar, "Orthogonal projection images for 3D face detection", *Pattern Recognition Letters*, 2013.
- Workshop:** M. Pamplona Segundo, S. Sarkar, D. Goldgof, L. Silva and O. R. P. Bellon, "Continuous 3D Face Authentication using RGB-D cameras", *IEEE Conference on Computer Vision and Pattern Recognition Workshops*, 2013.
- Conference:** M. Pamplona Segundo, L. Silva and O. R. P. Bellon, "Improving 3D face reconstruction from a single image using half-frontal face poses", *IEEE International Conference on Image Processing*, 2012.
- Conference:** M. Pamplona Segundo, L. Gomes, O. R. P. Bellon and L. Silva, "Automating 3D Reconstruction Pipeline by SURF-based Alignment", *IEEE International Conference on Image Processing*, 2012.
- Conference:** M. Pamplona Segundo, L. Silva and O. R. P. Bellon, "Real-Time Scale-Invariant Face Detection on Range Images", *IEEE International Conference on Systems, Man, and Cybernetics*, 2011.
- Conference:** J. Choi, G. G. Medioni, Y. Lin, L. Silva, O. R. P. Bellon, M. Pamplona Segundo, T. Faltemier, "3D Face Reconstruction Using A Single or Multiple Views", *IEEE International Conference on Pattern Recognition*, 2010.
- Journal:** M. Pamplona Segundo, L. Silva, O. R. P. Bellon and C. C. Queirolo, "Automatic Face Segmentation and Facial Landmark Detection in Range Images", *IEEE Transactions on Systems, Man and Cybernetics. Part B. Cybernetics*, 2010.
- Journal:** C. C. Queirolo, L. Silva, O. R. P. Bellon and M. Pamplona Segundo, "3D Face Recognition Using Simulated Annealing and the Surface Interpenetration Measure", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 2009.
- Book chapter:** C. C. Queirolo, S. A. Drovetto Junior, L. Silva, O. R. P. Bellon and M. Pamplona Segundo, "Hierarchical Evaluation Model: Extended Analysis for 3D Face Recognition", *Communications in Computer and Information Science*, Springer Verlag, 2009.
- Conference:** C. C. Queirolo, L. Silva, O. R. P. Bellon and M. Pamplona Segundo, "3D face recognition using the Surface Interpenetration Measure: A comparative evaluation on the FRGC database", *IEEE International Conference on Pattern Recognition*, 2008.
- Conference:** M. Pamplona Segundo, C. C. Queirolo, O. R. P. Bellon and L. Silva, "Automatic 3D facial segmentation and landmark detection", *IAPR International Conference on Image Analysis and Processing*, 2007.
- Conference:** C. C. Queirolo, M. Pamplona Segundo, O. R. P. Bellon and L. Silva, "Noise versus Facial Expression on 3D Face Recognition", *IAPR International Conference on Image Analysis and Processing*, 2007.
- Conference:** O. R. P. Bellon, L. Silva, C. C. Queirolo, S. A. Drovetto Junior and M. Pamplona Segundo, "3D face image registration for face matching guided by the surface interpenetration measure", *IEEE International Conference on Image Processing*, 2006.

HONORS

- World finalist in the 2017 ACM-ICPC (coach)
- Gold medal in the 2017 ACM-ICPC South America/Brazil Finals (coach)
- Top 10 in IEEEExtreme 10.0, 2016 (out of 2118 teams, coach)
- World finalist in the 2016 ACM-ICPC (coach)
- Silver medal in the 2016 ACM-ICPC South America/Brazil Finals (coach)
- Top 10 in IEEEExtreme 9.0, 2015 (out of 2040 teams, coach)
- Honorable mention in the Workshop of Undergraduate Works - SIBGRAPI 2015
- Third best thesis in the Theses and Dissertations Contest - CSBC 2014
- Second best paper in the Workshop of Undergraduate Works - SIBGRAPI 2007 and 2008
- Best paper in the Workshop of Undergraduate Works - SIBGRAPI 2007
- Third best paper in the Workshop of Undergraduate Works - SIBGRAPI 2006

REVIEWER SERVICE

- IEEE Transactions on Pattern Analysis and Machine Intelligence
- IEEE Transactions on Image Processing
- IEEE Transactions on Information Forensics and Security
- IEEE Sensors Journal
- IEEE Signal Processing Letters
- Information Sciences
- Pattern Recognition
- Pattern Recognition Letters
- International Journal of Pattern Recognition and Artificial Intelligence
- EURASIP Journal on Image and Video Processing
- Computer & Graphics

STUDENTS

- Current
 - Leone da Silva de Jesus, D.Sc. student
 - André Brasil Vieira Wyzykowski, D.Sc. student
 - Lucas Amparo Barbosa, M.Sc. student
 - Matheus Magalhães Batista dos Santos, M.Sc. student
 - Adeilson Antonio da Silva, B.Sc. student
 - Gabriel Dahia Fernandes, B.Sc. student
 - Ubiratan Correia Barbosa Neto, B.Sc. student
- Undergraduate students (REU, Senior Project)
 - Jonathan Coutinho Luz de Queiroz (went for an internship at Microsoft/US), 2017
 - Roberto Sales Caldeira, 2017
 - Antônio Roberto Paoli, 2016
 - Caio Araújo Neponoceno de Lima (went for graduate studies at UFMG), 2016
 - Mateus Cordeiro Gonçalves de Carvalho, 2016
 - Daniel Rodrigues Carvalho (went for graduate studies at Unicamp), 2015

GRANTS

- Multimodal face recognition, **Akiyama Inc.**, 2016-2018, R\$ 259,326.00 (Principal Investigator, co-PI: R. P. Lemes)
- Newborn identification, **Akiyama Inc.**, 2016-2018, R\$ 216,996.00 (co-PI, PI: R. P. Lemes)
- Continuous authentication of individuals based on multiple facial properties, **CNPq - National Council of Technological and Scientific Development**, 2014-2017, R\$ 21,000.00 (Principal Investigator)