

Gil Melfe Mateus Santos

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EDUCATION

University of Beira Interior
PhD in Computer Science and Engineering (2015/02)
MSc in Computation and Intelligent Systems (2009/12)
BSc in Computer Science and Engineering (2007/07)

WORK EXPERIENCE

- 2008/10 – Present IT – Instituto de Telecomunicações
Computer Vision Researcher, Covilhã, Portugal
Research, design and develop different scale applications in the field of computer vision, with strong mathematical and statistical background. Coordinate with multidisciplinary teams aiming at the deployment of the commercial application's versions. (Matlab, C++, OpenCV).
- 2012/02 – 2012/07 TFV – Sistemas Informáticos, S.A.
Independent Consultant, Lisbon, Portugal
iOS development. Engineering and deploy the statistics module for the Notes4Coach application in coordination with an extensive team from different fields of expertise (Objective-C, Cocoa, SQLite).
App link: www.notes4coach.com
- 2009/09 – 2011/06 University of Beira Interior
Class monitor, Covilhã, Portugal
Teach the practical classes on both *Databases* and *Internet Technologies* for the courses of *Computer Science and Engineering*, *Information Systems Technologies* and *Sports Sciences* (MySQL, PHP, HTML, JavaScript, CSS, Apache).

MAJOR PROJECTS

- 2014/03 – Present Quis-Campi: a fully automated biometric recognition system, able to work in completely covert conditions. Responsible for devising and assembling the working prototype, configure different UNIX systems for test and live environments, and lead fellow researchers providing troubleshooting guidance.
Project link: www.it.pt/project_detail_p.asp?ID=1937
- 2010/05 – 2013/04 Necovid: an automated system for covert and reliable biometric recognition, using iris as a single trait. Responsible for building the theoretical support for the project, covering object recognition, negative recognition and unconstrained biometrics. Design and build proof of concept for periocular based biometric recognition.
Project link: www.di.ubi.pt/~hugomcp/necovid.htm
- 2008/10 – 2011/03 Biorec: a system for recognizing people without their cooperation, using iris and face detection. Responsible for developing and implementing a novel technique for iris recognition, and integrate the developed method in the working prototype.
Project link: www.di.ubi.pt/~lfbaa/biorec.html

TECHNICAL SKILLS Programming Languages:
MATLAB 6 years
C/C++ 6 years
SQL 2 years

Platforms: Linux (administrator), Mac OS (user), Windows (user)
RDBMS: MySQL (2 years), SQLite (6 months)
Other: OpenCV

SOCIAL SKILLS Comfortable working on a new set of challenges and a completely different environment.
Excellent analytical, problem solving and communication skills.
Can work independently, with a “can do” attitude.
Very organized and methodical.

LANGUAGES Portuguese (native speaker)
English (proficient user)

ORGANIZATIONS IEEE - Institute of Electrical and Electronics Engineers (Member)
IEEE Biometric Council (Member)
Elsevier Pattern Recognition Letters (Reviewer)

PUBLICATIONS Gil Santos, Paulo Fiadeiro, Hugo Proença; ***BioHDD: A Dataset for Studying Biometric Identification on Heavily Degraded Data***, *IET Biometrics*, ISSN 2047-4938, DOI: 10.1049/iet-bmt.2014.0045, 2014.

 Gil Santos, Emanuel Grancho, Marco V. Bernardo, Paulo T. Fiadeiro; **Fusing Iris and Periocular Information for Cross-sensor Recognition**, *Elsevier Pattern Recognition Letters*, DOI: 10.1016/j.patrec.2014.09.012.

 Hugo Proença, Gil Santos, João C. Neves; **Using Ocular Data for Unconstrained Biometric Recognition**, *Face Recognition in Adverse Conditions*, Maria De Marsico, Michele Nappi, Massimo Tistarelli (Eds.), Advances in Computational Intelligence and Robotics Book Series, IGI Global, 2014, ISSN: 2327-0411.

 Hugo Proença, João C. Neves and Gil Santos; **"Segmenting the Periocular Region using a Hierarchical Graphical Model Fed by Texture / Shape Information and Geometrical Constraints"** in *Proceedings of the International Joint Conference on Biometrics - IJCB 2014*, Clearwater, Florida, U.S.A., September 29 - October 2, 2014

 Gil Santos, Hugo Proença; **Periocular Biometrics: An Emerging technology for Unconstrained Scenarios**, in *Proceedings of the IEEE Symposium on Computational Intelligence in Biometrics and Identity Management - CIBIM 2013*, Singapore, April 16-19, pag. 14-21, ISBN: 978-1-4673-5879-8/13.

 Elisa Barroso, Gil Santos, Hugo Proença; **Facial Expressions: Discriminability of Facial Regions and Relationship to Biometrics Recognition** in *Proceedings of the IEEE Symposium on Computational Intelligence in Biometrics and Identity Management - CIBIM 2013*, Singapore, April 16-19, pag. 77-80, ISBN: 978-1-4673-5879-8/13

Gil Santos, Edmundo Hoyle; **A Fusion Approach to Unconstrained Iris Recognition**, *Elsevier Pattern Recognition Letters*, volume 33, number 8, pag. 984-990, June 2012, DOI: 10.1016/j.patrec.2011.08.17.

Hugo Proença, Gil Santos; **Fusing Color and Shape Descriptors in the Recognition of Degraded Iris Images Acquired at Visible Wavelength**, *Elsevier Computer Vision and Image Understanding*, volume 116, pag. 167-178, ISSN 1077-3142, DOI: 10.1016/j.cviu.2011.10.008.

Gil Santos, Hugo Proença; **A Robust Eye-Corner Detection Method for Real-World Data**, in *Proceedings of the IEEE International Joint Conference on Biometrics – IJCB 2011, Washington DC, U.S.A., October 11-13, 2011*

Gil Santos, Marco Bernardo, Paulo Fiadeiro, Hugo Proença; **Iris Recognition: Preliminary Assessment about the Discriminating Capacity of Visible Wavelength Data**, in *Sixth IEEE International Workshop on Multimedia Information Processing and Retrieval (MIPR 2010)* Taichung, Taiwan, December 13 - December 15, pag. 324-329, 2010, ISBN: 978-0-7695-4217-1

Gil Santos, Hugo Proença; **Iris Recognition: Analysing the Distribution of the Iriscodes Concordant Bits**, in *IEEE Proceedings of the 3rd International Congress on Image and Signal Processing (CISP 2010)*, Yantai, China, October 16 - October 18, vol. 4, pag. 1873-1877, 2010.

Gil Santos, Hugo Proença; **On the Role of Interpolation in the Normalization of Non-Ideal Visible Wavelength Iris Images**, in *IEEE Proceedings of the 2009 International Conference on Computational Intelligence and Security (CIS'09)*, Beijing, China, December 11 - December 14, 2009, vol 1, pag. 315-319, ISBN: 978-0-7695-3931-7.