

Víctor Ponce López



Contact

vponcelop[at]gmail.com
victorponce.site
Bristol, United Kingdom

Languages

Catalan ★★★★★(native),
Spanish ★★★★★(native),
English ★★★★★
(advanced reading/writing,
fluent oral),
Français ★★★★★
(intermediate reading/writing,
basics oral).

Programming Languages, Libs, Tools, Web and Environments

♥ Python, MATLAB,
C++/C#/C, R, PyCharm,
Netbeans, Eclipse, VS/VC++,
SVN/GIT, Redmine, L^AT_EX, XML,
PostgreSQL, SQL, MySQL,
Hive, Spark, Hadoop,
CodaLab, Kaggle, Bash,
PHP/HTML/CSS/JavaScript;
Deep Learning & Computer Vision libraries and toolboxes:
♥ Tensorflow, PyTorch, Keras,
GAN, CNN, LSTM, dlib,
CUDA+CuDNN, Kinect™ SDK,
open{CV/Ni/GL}, CNTK+;
evolutionary computation and
statistical pattern recognition:
♥ numpy, matplotlib, sklearn,
optimtool, gatool, pmtk3,
deap, pandas, statsmodel.

OS Preferences

GNU/Linux ★★★★★
Windows ★★★★★
MacOS ★★★★★
Android ★★★★★
iOS ★★★★★

short bio

I am a Research Associate in the Dept. of Computer Science at the University of Bristol. I was a Research Scientist in Eurecat at the Big Data Analytics Unit. I hold a PhD at the the Dept. of Mathematics and Computer Science, University of Barcelona (UB). I received my B.Sc. degree in Computer Science and Engineering at the Faculty of Mathematics of UB, and my M.Sc. degree in Artificial Intelligence at the Polytechnic University of Catalonia (UPC). I was affiliated to the Computer Vision Center -Autonomous University of Barcelona (UAB)- and the Open University of Catalonia (UOC), in the groups HuPBA and SUNAI; and the group Qarma at the Laboratoire d'Informatique Fondamentale (LIF), Aix-Marseille Université.

experience

- | | | |
|--------------|---|-------------------------|
| 2017–Present | University of Bristol
<i>Postdoctoral Research Associate, Dept. of Computer Science.</i>
• Time-Series Predictive Analysis of Seasonal Ground Surface Deformation.
• Computer Vision for Human Activity Recognition in Home Healthcare.
• Domain Adaptation, Self-Supervised Learning, GANs, Person Re-IDentification. | Bristol, United Kingdom |
| 2010–2017 | Eurecat Technology Center of Catalonia, University of Barcelona, Open University of Catalonia, Computer Vision Center, and Dept. of Justice, Government of Catalonia
<i>Research Scientist, PostDoc, Collaboration in Research projects, international PhD stay, 40+ scientific publications and peer-reviews, teaching and material preparation, organization/attendance on international conferences, events, and seminars.</i>
• 4 impact factor journals, 17 conference proceedings, and 1 book chapter.
• ChaLearn Looking At People collaboration with Microsoft, NVIDIA, Google, Amazon, Disney, Facebook, Orange, MWC-GSMA.
• Research projects on human behavior analysis within real-world domains. | |
| Past–2010 | Barcelona's Council: Dept. of Education, Culture and Welfare
<i>Software Engineer, IT Services.</i> | Barcelona, Spain |

education

- | | |
|-----------|--|
| 2012–2016 | Ph.D. in Mathematics and Computer Science
Faculty of Mathematics, University of Barcelona
Dissertation: "Evolutionary Bags of Space-Time Features for Human Analysis." Cum Laude (spanish) and International Mention. |
| 2010–2012 | M.Sc in Artificial Intelligence
Polytechnic University of Catalonia, University of Barcelona, and Rovira i Virgili University.
Dissertation: "Multi-Modal Human Gesture Recognition combining Dynamic Programming and Probabilistic Methods." With Honors. |
| 2006–2010 | B.Sc in Computer Science: Systems engineering
Faculty of Mathematics, University of Barcelona.
Dissertation: "Analysis of Oral and Gestural Expression using an Artificial Vision System." With Honors. |

extracurricular

- | | | |
|--------------|--|------------------------------------|
| 2006–Present | Driving license | |
| 2004–Present | Martial Arts licenses | Hapkido 2 nd Black Belt |
| 1998–2004 | Musical language and Piano licenses | |

interests

I'm a research & technology passionate. My main interests are computer vision, machine learning, and evolutionary computation for real-world applications. I like to be up to date with latest research and cutting-edge technology to foresee next future trends and needs.

• PARTICIPATION IN RESEARCH PROJECTS AND TECHNOLOGICAL TRANSFER:

Project Title: Digital Environment for the Analysis and Detection of Ground Surface Deformation.

Funding Entity: UK Research and Innovation.

Participant Entities: University of Bristol, SatSense, Terrafirma, TRE-Altamira.

Duration: 2019/05/20 to 2019/12/23.

Project Responsible: Juliet Biggs.

Number of Researchers involved: >10

Project Title: SPHERE, a Sensor Platform for HEalthcare in a Residential Environment.

Funding Entity: EPSRC (Engineering and Physical Sciences Research Council), University of Bristol.

Participant Entities: IBM, Toshiba, Bristol City Council, Universities of Southampton, Cambridge and Reading, KWMC.

Duration: 2017/01/31 to 2022/01/31.

Project Responsible: Ian Craddock, Majid Mirmehdi, Dima Damen.

Number of Researchers involved: >50

Project Title: eTur 2020.

Funding Entity: Centro para el Desarrollo Tecnológico Industrial (CDTI), MINECO, Spanish Government.

Participant Entities: Tecnomcom, Groupalia, Eurecat, Eureka, Solusoft, Compartia, Zemsania.

Duration: from 2017/05/05 to 2017/09/31.

Project Responsible: Jesus Carlos Villagra Laso, Jose Mena Roldan, Marc Torrent, Víctor Ponce López.

Number of Researchers involved: >10

Project Title: Tourism Management.

Funding Entity: Barcelona Council, GSM, and Mobile World Capital.

Participant Entities: Barcelona Council, Orange, GSM, MWC, Eurecat, DFRC, D-Lab.

Duration: from 2017/02/15 to 2018/04/31.

Project Responsible: Marc Torrent Moreno, Bárbara Vallespín Peré.

Number of Researchers involved: >10

Project Title: New Technologies for Virtual and Augmented Reality (VR360).

Funding Entity: Eurecat, Government of Catalonia.

Participant Entities: Eurecat Technology Center of Catalonia, Computer Vision Center.

Duration: from 2017/04/01 to 2018/12/31.

Project Responsible: Rafael Redondo.

Number of Researchers involved: >10

Project Title: Social Car.

Funding Entity: European Union Horizon 2020 No 636427.

Participant Entities: CERTH, MOVENDA, TAXISTOP, SUPSI, UWH, ZIGHT, ABACUS, STRATEGIC STUFF, UNIABDN, IBI Group, FIT, VECTOS, BERMAG, TTS Italia, Eurecat.

Duration: from 2015/09/01 to 2017/11/31.

Project Responsible: Dionisis Kehagias, Andrea Emilio Rizzoli

Number of Researchers involved: >10

Project Title: ChaLearn Looking at People: Apparent Personality Analysis on First Impressions.

Funding Entity: ChaLearn.

Participant Entities: Microsoft Research, NVIDIA, Amazon, Google, Disney Research, Aix-Marseille Université, *Universitat Autònoma de Barcelona* (UAB), *Universitat de Barcelona* (UB), *Universitat Oberta de Catalunya* (UOC).

Duration: from 2014/09/22 to 2016/11/31.

Project Responsible: Isabelle Guyon, Sergio Escalera.

Number of Researchers involved: >20

Project Title: ChaLearn Looking at People: Gesture Challenge.

Funding Entity: European Conference on Computer Vision (ECCV) 2014, ChaLearn.

Participant Entities: Microsoft Research, *Universitat Autònoma de Barcelona* (UAB), *Universitat de Barcelona* (UB), *Universitat Oberta de Catalunya* (UOC).

Duration: from 2013/12/09 to 2014/10/12

Project Responsible: Isabelle Guyon, Sergio Escalera.

Number of Researchers involved: >20

Project Title: Spatio-Temporal Sub-Gesture Definition for Automatic Human Behaviour Analysis.

Funding Entity: FI-DGR 2013. AGAUR, *Generalitat* of Catalonia.

Participant Entities: Open University of Barcelona (UOC).

Duration: from 2013/02/01 until 2016/01/31

Project Responsible: Xavier Baró Solé.

Number of Researchers involved: 5

Project Title: ReMedi: Multi-modal Home Assistive Technology for Dementia and Alzheimer's Diseases.

Funding Entity: Obra Social La Caixa.

Participant Entities: Bosch and Gimpera Foundation (FBG), University of Barcelona.

Duration: from 2012/04/01 until 2013/01/31

Project Responsible: Oriol Pujol Vila.

Number of Researchers involved: 7

Project Title: Human Behaviour Analysis in Victim-Offender Mediations.

Funding Entity: Department of Justice of the *Generalitat* of Catalonia.

Duration: from 2012/02/01 until 2013/03/31

Project Responsibles: Víctor Ponce López, Sergio Escalera Guerrero, Xavier Baró Solé.

Number of Researchers involved: 5

Project Title: Analysis of Oral and Gestural Expression using an Artificial Vision System.

Funding Entity: University of Barcelona.

Duration: from: 2010/06/01 until 2010/11/01

Project Responsible: Sergio Escalera, Xavier Baró, Miguel A. Bautista, Víctor Ponce, Verónica Violant.

Number of Researchers involved: 8

• SCHOLARSHIPS AND GRANTS:

- 2019: **UKRI Grant** from UK Research and Innovation for Research Projects in Digital Environment.
- 2017: **EPSRC and IRC Grants**, UK Engineering and Physical Sciences and International Research Councils, Grant *EP/K031910/1*.
- 2016: **Research support** provided by Microsoft Research, Microsoft CodaLab, the Laboratoire de Recherche en Informatique of Paris Sud University, INRIA-Saclay and the Paris-Saclay Center for Data Science (CDS).
- 2015: **European Comission Horizon 2020 (H2020)** granted project SEE.4C under call *H2020-ICT 2015*.

Grant to support research projects of consolidated groups by the Ministry of Economy and Competitiveness, **Spanish Government**. *TIN2015-66951-C2-2-R*.

- 2014: **Labex ARCHIMEDE** Grant for a Research Project. Marseille INstitute of MAtematics and Computer Science (MIN-MACS). Laboratoire d'Informatique Fondamentale, Aix-Marseille Université, UMR CNRS 7279.
- 2013: **FI-DGR 2013 Grant for Formation in Research** from the 'Agència de Gestió d'Ajuts Universitaris i de Recerca' (AGAUR), **Generalitat, Catalan Government**. *2013FI-B01037*.

Grant to support Spanish research projects of consolidated groups by the Ministry of Economy and Competitiveness, **Spanish Government**. *TIN2013-43478-P*.

- 2012: **PMID Grant for Teaching Innovation Projects** from **University of Barcelona**. Code: *2012PID-UB/152*.

Grant to support research projects of consolidated groups by the Ministry of Economy and Competitiveness, **Spanish Government**. *TIN2012-38187-C03-02*.

CEJFE Grant for a research project with the **Department of Justice (Generalitat of Catalonia)**. *Center of Legal Studies and Specialized Formation*. Resolution id: *JUS/237/2011*.

Grant from *Obra Social La Caixa* for a **Research Project** at the Department of Applied Mathematics and Analysis of the **University of Barcelona**. Grant id: *5800201204001*.

- 2011: **Scholarship** for **Web administration** of the **Faculty of Mathematics** of the University of Barcelona. Code: *1-11PUI*.

Grant to support research projects from IMSERSO, Ministry of Sanity, **Spanish Government**. *MEDIMINDER*.

Grant to support research and technological projects from RecerCaixa. *REMEDI*.

- 2010: **Collaboration Scholarship for Teaching Innovation Projects** with the Department of Applied Mathematics and Analysis of the **University of Barcelona**. Code: 2-10ESC.
- 2009: **PMID Grant for Teaching Innovation Projects** from **University of Barcelona**. Code: 2009PID-UB/04.

• **OTHER PUBLIC AND PRIVATE PROJECTS INVOLVED:**

- 2017-
Present: **Post-Doctoral Research Associate** at the University of Bristol.
- 2016: **Research Scientist** at Eurecat, Technology Centre of Catalonia.
- 2016: **Post-Doc Researcher** at the **Computer Vision Center**, *Universitat Autònoma de Barcelona*.
- 2010: **Software Engineer and IT Services** at the Education Management, Culture and Welfare of the **Barcelona Council**.

• **PEER REVIEWING (Verified by <https://publons.com/a/1202458>) (Year) (#Reviews)**

- IEEE Transactions on Evolutionary Computation 2019(1).
- British Machine Vision Conference (BMVC), 2019(4)
- IEEE Computer Vision and Pattern Recognition, Explanatory Computer Vision Workshop ECVW @ CVPR, 2017(1).
- IEEE Computer Vision and Pattern Recognition, Deep Vision Workshop DV2017 @ CVPR, 2017(1).
- IEEE Transactions on Affective Computing, 2017(2).
- IET Computer Vision 2016(1) – 2017(3).
- On Editorial Board Membership for IEEE Transactions on Affective Computing, 2016.
- IEEE International Conference on Automatic Face and Gesture Recognition (FG), 2016(2)-2017(2)-2018(4)-2019(1).
- IEEE European Conference on Computer Vision (ECCV) Workshops, 2014(2) - 2016 (2).
- IEEE Computer Vision and Pattern Recognition (CVPR) Conference Workshops, 2016 (3).
- IEEE International Conference on Computer Vision (ICCV) Workshops, 2015 (committee member).
- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2015 (5).
- IEEE Transactions on Multimedia, 2014(1).
- Journal of Machine Learning Research (JMLR), 2013(1) - 2014(2).

- **ORGANIZATION AND SCIENTIFIC PROGRAM COMMITTEE (PC) MEMBER:**

- Mentor at the ImaginChallenge 2016. Obra Social La Caixa.
- ECCV 2016 Workshop ChaLearn Looking at People: First Impressions.
- CVCR&D 2016 Workshop: Computer Vision Center, Research and Development advances.
- ECCV 2014 Workshop ChaLearn Looking at People: Gesture Recognition.
- CCIA 2014 Member of the organization.
- ICCV 2011 Member of the organization.

- **PARTICIPATION IN CONFERENCES AND SEMINARS:**

- Digital Environment Stakeholder Workshop Meeting, 2019, Engineering House, Bristol
- International Conference on Image Analysis and Processing (ICIAP), 2019.
- European Conference on Computer Vision (ECCV) Person-In-Context Workshop, 2018.
- British Machine Vision Association (BMVA) Symposium, Technical meeting in Computer Vision for Smart Environments and Assisted Living.
- Bristol Vision Institute Research Colloquium, 2018. Participant and assistant.
- >10 seminars from the Bristol Vision Institute, Visual Information Lab, and SPHERE, at the University of Bristol. Participation and assistant.
- *Mobile World Congress*, Exhibitor Staff at the Big Data Innovation City (Hall 4), 2017, Barcelona.
- *European Workshop on Reinforcement Learning (EWRL)*, 2016, Barcelona. Assistant.
- *Intel Code Modernization Workshop* 2016, Barcelona. Assistant.
- *Big Data Congress and Eurecat Mobile Forum* 2016, Barcelona. Participant and assistant.
- Assistance in *more than 20 seminars* covering different areas in the **Artificial Intelligence** and **Computer Vision** at the Computer Vision Center of the UAB in the range of years between 2010-2016.
- Deep learning *Seminar meetups* at Polytechnic University of Catalonia (UPC) and Pompeu Fabra University (UPF), 2016.
- *British Machine Vision Conference (BMVC) 2015*. Conference assistant and participant.

- Seminars and workshops held by QARMA group at *Centre de Mathématiques et Informatique (CMI). Laboratoire d'Informatique Fondamentale*, Aix-Université de Marseille, 2014.
- *European Conference on Computer Vision (ECCV) 2014*. Conference assistant and participant. Workshop ChaLearn Looking At People challenge organizer.
- *Congrés Internacional de l'Associació Catalana d'Intel·ligència Artificial (CCIA) 2014*. Facultad de Matemáticas, Universitat de Barcelona. Member of the Committee.
- *International Conference on Multimodal Interaction (ICMI) 2013*. Coogee Bay Hotel, Sydney, Australia. Conference assistant and participant.
- *First UOC International Research Symposium RDI 2013*. Conference assistant and participant.
- *ENS/INRIA Computer Vision and Machine Learning Summer School 2013*. Assistant and participant.
- *Mobile World Congress (MWC) 2013*. Exhibitor Attendee.
- *International Conference on Pattern Recognition (ICPR) 2012*. Tsukuba Science City, Japan. Conference assistant and participant.
- *II Day of Restorative Justice 2012: Experiències restauratives en les comunitats autònomes. Centre d'Estudis Jurídics i Formació Especialitzada (CEJFE), Generalitat of Catalonia*.
- *June Seminar 2012: Humans like watching humans: recent advances in human-centered video analysis*. Assistant at the Computer Vision Center.
- *Mobile World Congress (MWC) 2012*. Congress assistant.
- *International Conference on Computer Vision (ICCV) 2011*. Member of the Organization Committee and conference assistant.
- *Mediation Talk 2012: Gestural communication in mediation sessions*. Center of Legal Studies and Specialized Information, Department of Justice of the *Generalitat* of Catalonia.
- *Workshop CVCR&D 2011*. Assistant and participant at the Computer Vision Center. Autonomous University of Barcelona (UAB).
- *International Joint Conference on Artificial Intelligence (IJCAI) 2011*. Conference assistant participant at the *Doctoral Consortium*.
- *July Seminar 2011: Uncertainty in Artificial Intelligence*. Assistant at the Computer Vision Center.
- *Mobile World Congress (MWC) 2011*. Congress assistant.
- *December Seminar 2010: Facial Behaviour Understanding*. Assistant at the Computer Vision Center.

- *Workshop CVCR&D 2010*. Assistant and Participant at the Computer Vision Center.
- July Seminar 2010: *Recognizing Human Actions using Spatio-temporal Interest Points*. Assistant at the Computer Vision Center.

- **TEACHING:**

- Co-supervision of B.Sc and M.Sc Students. Thesis at University of Bristol, 2017-2018.
- Support and preparation of teaching material for the Computer Vision course in the Computer Science degree at the Faculty of Mathematics. University of Barcelona, 2014.
- Co-supervision of Student's B.Sc. Thesis at University of Barcelona, 2013.
- Grant for Teaching Innovation Projects with code 2012PID-UB/152 from the University of Barcelona.
- Artificial Intelligence *Xerrades Taller* (Working Talks) at the Faculty of Mathematics (University of Barcelona). Practical Works, Title: "Artificial Intelligence: How do the machines see?" January 2011. Organizer: Dr. Sergio Escalera.
- ITACA UAB. Days for presenting the Complex Problems and activities in the 'Campus Ítaca' at the Autonomous University of Barcelona. 2010-2015.

- **HONORS, AWARDS AND OTHER MERITS:**

- **Author of 4 impact factor journals, 17 conference proceedings and 1 book chapter.**
- **>40 verified peer-reviews** in impact factor journals and international conference proceedings.
- **Runner up** for the CERCA Pioneer awards 2016.
- **Runner up** at the **Big Data Talent Awards**, Barcelona Big Data Congress 2016.
- **International Mention** and **Cum Laude** distinction for the **Ph.D. Thesis**.
- Obtention of **Honors** both for **B.Sc.** and **M.Sc. Theses**.
- **Award for the best Spanish Bachelor Project** by the "*Jornadas de Enseñanza Universitaria de la Informática (JENUI) 2010*" and posterior publication at the *ReVisión* Journal of the "*Asociación de Enseñantes Universitarios de la Informática (AENUI)*", with the **work for automatically determine the success of a communication**.

FULL PUBLICATION LIST

Journal papers

H.-J. Escalante, V. Ponce-López, S. Escalera, X. Baró, A. Morales-Reyes, and J. Martínez-Carranza. **Evolving weighting schemes for the Bag of Visual Words**. Neural Computing and Applications, Volume 28, Issue 5, pp. 925–939, 2015. [\[Link\]](#) [\[PDF\]](#) [\[BibTeX\]](#)

V. Ponce-López, S. Escalera, M. Perez, O. Janés, and X. Baró. **Non-Verbal Communication Analysis in Victim-Offender Mediations**. Pattern Recognition Letters, vol. 67, no. 1, pp. 19-27, 2015. [\[Link\]](#) [\[PDF\]](#) [\[BibTeX\]](#) [\[arXiv pre-print\]](#) [\[VideoSample\]](#)

A. Hernandez-Vela, M. A. Bautista, X. Perez-Sala, V. Ponce-López, X. Baro, O. Pujol, C. Angulo, and S. Escalera. **Probability-based Dynamic Time Warping and Bag-of-Visual-and-Depth-Words for Human Gesture Recognition in RGB-D**. Pattern Recognition Letters, 2013, ISSN 0167-8655. [\[Link\]](#) [\[PDF\]](#) [\[BibTeX\]](#)

A. Hernández-Vela, M. Reyes, V. Ponce, S. Escalera. **GrabCut-Based Human Segmentation in Video Sequences**. Sensors 2012, ISSN 1424-8220, vol. 12, num. 11, pp. 15376-15393. [\[Link\]](#) [\[PDF\]](#) [\[BibTeX\]](#) [\[Data\]](#)

Proceeding papers in Conferences and Workshops



V. Ponce-López, T. Burdghart, Y. Sun, S. Hannuna, D. Damen, M. Mirmehdi. **Deep Compact Person Re-Identification with Distractor Synthesis via Guided DC-GANs**. International Conference on Image Analysis and Processing, Lecture Notes in Computer Science, vol. 11751, pp. 488-498, ISBN 978-3-030-30641-0, 2019. [\[Link\]](#) [\[Poster\]](#) [\[BibTeX\]](#)



V. Ponce-López, T. Burdghart, S. Hannuna, D. Damen, A. Masullo, M. Mirmehdi. **Semantically Selective Augmentation for Deep Contact Person Re-Identification**. European Conference on Computer Vision Workshops, Lecture Notes in Computer Science, vol 11130, Springer, 2019. [\[Link\]](#) [\[BibTeX\]](#) [\[Code 1\]](#) [\[Code 2\]](#) [\[arXiv pre-print\]](#) [\[Poster\]](#)



A. Masullo, T. Burdghart, D. Damen, S. Hannuna, V. Ponce-López, M. Mirmehdi. **CaloriNet: From Silhouettes to calorie estimation in private environments**. British Machine Vision Conference (BMVC), 2018. [\[PDF\]](#) [\[arXiv pre-print\]](#) [\[BibTeX\]](#)

P. Fiadino, V. Ponce-López, J.-A. Torrero-Gonzalez, M. Torrent-Moreno. **Call Detail Records for Human Mobility Studies: Taking Stock of the Situation in the “Always Connected Era”**. ACM SIGCOMM 2017 Workshop on Big Data Analytics and Machine Learning for Data Communication Networks, 2017. [\[Link\]](#) [\[PDF\]](#) [\[BibTeX\]](#)

M. Asadi-Aghbolaghi, A. Clapés, M. Bellantonio, H.-J. Escalante, V. Ponce-López, X. Baró, I. Guyon, S. Kasaei, S. Escalera. **A survey on deep learning based approaches for action and gesture recognition in image sequences**. Proceedings of 12th IEEE International Conference on Automatic Face and Gesture Recognition (FG), pp. 476-483, 2017. [\[Link\]](#) [\[PDF\]](#) [\[BibTeX\]](#)

H.-J. Escalante, V. Ponce-López, J. Wan, M.-A. Riegler, B. Chen, A. Clapés, S. Escalera, I. Guyon, X. Baró, Pal Halvorsen, H. Müller, M. Larson **ChaLearn Joint Contest on Multimedia Challenges Beyond Visual Analysis: An Overview**. Proceedings of the International Conference on Pattern Recognition (ICPR) Joint Contest on Multimedia Challenges Beyond Visual Analysis, 2016. [\[Link\]](#) [\[PDF\]](#) [\[BibTeX\]](#)

V. Ponce-López, B. Chen, M. Oliu, C. Corneanu, A. Clapés, I. Guyon, X. Baró, H. J. Escalante, S. Escalera. **ChaLearn LAP 2016: First Round Challenge on First Impressions - Dataset and Results**. Proceedings of the European Conference in Computer Vision (ECCV), Workshop and Challenge on Apparent Personality Analysis, pp. 400-418, 2016. [\[Link\]](#) [\[PDF\]](#) [\[BibTeX\]](#)

B. Chen, S. Escalera, I. Guyon, V. Ponce - López, N. Shah, M. Oliu. **Overcoming Calibration Problems in Pattern Labeling with Pairwise Ratings: Application to Personality Traits**. Proceedings of the European Conference in Computer Vision (ECCV), Workshop on Apparent Personality Analysis, vol. 9915, pp. 419-432, 2016. [\[Link\]](#) [\[PDF\]](#) [\[BibTeX\]](#)

V. Ponce-López, H.J. Escalante, S. Escalera, X. Baró. **Gesture and Action Recognition by Evolved Dynamic Subgestures**. Proceedings of the British Machine Vision Conference (BMVC), pp. 129.1-129.13, 2015. [\[Link\]](#) [\[PDF\]](#) [\[Abstract\]](#) [\[Poster\]](#) [\[BibTeX\]](#) [\[Code\]](#)

H.J. Escalante, J. Martinez, S. Escalera, V. Ponce-López and X. Baró. **Improving Bag of Visual Words Representations with Genetic Programming**. Proceedings of the International Joint Conference on Neural Networks (IJCNN) 2015. [\[Link\]](#) [\[PDF\]](#) [\[BibTeX\]](#)

S. Escalera, X. Baró, J. González, M. Bautista, M. Madadi, M. Reyes, V. Ponce-López, H. Escalante, J. Shotton, I. Guyon. **ChaLearn Looking at People Challenge 2014: Dataset and Results**. ECCV ChaLearn LAP Workshop, vol. 1, pp. 459-473, 2014. [\[Link\]](#) [\[PDF\]](#) [\[BibTeX\]](#)

V. Ponce-López, S. Escalera, and X. Baró. **Multi-modal Social Signal Analysis for Predicting Agreement in Conversation Settings**. International Conference on Multimodal Interaction, Sydney, ISBN 978-1-4503-2129-7, pp. 495-502, 2013. [\[Link\]](#) [\[PDF\]](#) [\[BibTeX\]](#)

A. Hernández, M. A. Bautista, X. Pérez, V. Ponce, X. Baró, O. Pujol, C. Angulo, and S. Escalera. **BoVDW: Bag-of-Visual-and-Depth-Words for Gesture Recognition**. 21st International Conference on Pattern Recognition, 2012, Japan, ISSN 1051-4651, pp. 449-452. [\[Link\]](#) [\[PDF\]](#) [\[BibTeX\]](#)

M. A. Bautista, A. Hernández, V. Ponce, X. Pérez, X. Baró, O. Pujol, C. Angulo, and S. Escalera. **Probability-based Dynamic Time Warping for Gesture Recognition**. International Workshop on Depth Image Analysis, ICPR 2012, Japan, ISSN 0302-9743, vol. 7854, pp. 126-135. [\[Link\]](#) [\[PDF\]](#) [\[BibTeX\]](#)

V. Ponce, S. Escalera, & X. Baro. **Social Signal Analysis in Criminal Mediation Processes**. Advances in Theory and Applications of Computer Vision, CVCR&D Workshop, 2012, vol. 1. [\[PDF\]](#) [\[Poster\]](#)

V. Ponce, M. Reyes, X. Baró, M. Gorga and S. Escalera. **Two-level GMM Clustering of Human Poses for Automatic Human Behavior Analysis**. CVCR&D State of the Art of Research and Development in Computer Vision, CVCR&D Workshop, 2011, ISBN 978-84-938351-5-6, pp. 47-50. [\[PDF\]](#) [\[Poster\]](#)

V. Ponce, M. Gorga, X. Baró, S. Escalera. **Human Behavior Analysis from Video Data using Bag-of-Gestures**. International Joint Conference on Artificial Intelligence, 2011, ISBN 978-1-57735-515-1 vol. 3, pp. 2836-2837. [\[Link\]](#) [\[PDF\]](#) [\[BibTeX\]](#)

V. Ponce, S. Escalera, X. Baró, and P. Radeva. **Automatic Analysis of Non-verbal Communication**. Achievements and New Opportunities in Computer Vision, CVCR&D Workshop 2010, ISBN 978-84-938351-0-1, pp. 105-108. [\[PDF\]](#) [\[Poster\]](#)

Book Chapters

M. Asadi-Aghbolaghi, A. Clapés, M. Bellantonio, H.-J. Escalante, V. Ponce-López, X. Baró, I. Guyon, S. Kasaei, S. Escalera. **Deep Learning for Action and Gesture Recognition in Image Sequences: A Survey**. Gesture Recognition, The Springer Series on Challenges in Machine Learning book series (SSCML), pp. 539-578, 2017. [\[Link\]](#) [\[PDF\]](#) [\[BibTeX\]](#)

Technical Reports - White Papers



V. Ponce-López, Paul Hill, Juliet Biggs. **Time-Series Forecasting for Ground Deformation**. Technical Report, University of Bristol, 2019. [\[Poster\]](#)

Yue Sun. **Re-identification in Home Environments using Facial and Appearance Features**. Bachelor of Science Thesis in the Department of Computer Science at the Faculty of Engineering, University of Bristol, 2018. [\[PDF\]](#)

Xiang He. . Master of Science Thesis in the Department of Computer Science at the Faculty of Engineering, University of Bristol, 2018. [\[PDF\]](#)

Atis Elsts, Tilo Burghardt, Dallan Byrne, Dima Damen, Xenofon Fafoutis, Sion Hannuna, Victor Ponce Lopez, Alessandro Masullo, Majid Mirmehdi, George Oikonomou, Robert Piechocki, Emma

Tonkin, Antonis Vafeas, Przemyslaw Woznowski, Ian Craddock. **A Guide to the SPHERE 100 Homes Study Dataset**. University of Bristol Tech. Report, 2018. [\[Link\]](#) [\[PDF\]](#) [\[BibTeX\]](#)

V. Ponce. **Evolutionary Bags of Space-Time Features for Human Analysis**. Ph.D. Thesis, 2016. [\[Link\]](#) [\[PDF\]](#) [\[Slides\]](#)

V. Ponce. **Multi-Modal Human Gesture Recognition combining Dynamic Programming and Probabilistic Methods**. M.Sc. Thesis, 2012. [\[PDF\]](#) [\[Slides\]](#)

V. Ponce, M. Gorga, X. Baró, P. Radeva, and S. Escalera. **Análisis de la expresión oral y gestual en proyectos fin de carrera vía un sistema de visión artificial**. ReVisión, la revista electrónica de la Asociación de Enseñantes Universitarios de la Informática AENUI, 2011, ISSN 1989-1199, vol. 4, num. 1 (In Spanish). [\[Link\]](#) [\[PDF\]](#)

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