Víctor Ponce López

Contact
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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, LaTeX, 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 Fondamentalle (LIF), Aix-Marseille Université.

experience

2017–Present — **University of Bristol** — Bristol, United Kingdom
Postdoctoral Research Associate, Dept. of Computer Science.
- 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.

2010–2017 — **Eurecat Technology Center of Catalonia, University of Barcelona, Open University of Catalonia, Computer Vision Center, and Dept. of Justice, Government of Catalonia**
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.
- 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** — Barcelona, Spain
Software Engineer, IT Services.

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 2nd 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: Tecnocom, Groupalia, Eurecat, Eurona, 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 Tecnology 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 MAthematics and Computer Science (MIN-MACS). Laboratoire d'Informatique Fondamentalle, *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)**

  o IEEE Transactions on Evolutionary Computation 2019(1).

  o British Machine Vision Conference (BMVC), 2019(4)

  o IEEE Computer Vision and Pattern Recognition, Explanatory Computer Vision Workshop ECVW @ CVPR, 2017(1).

  o IEEE Computer Vision and Pattern Recognition, Deep Vision Workshop DV2017 @ CVPR, 2017(1).

  o IEEE Transactions on Affective Computing, 2017(2).

  o IET Computer Vision 2016(1) – 2017(3).

  o On Editorial Board Membership for IEEE Transactions on Affective Computing, 2016.

  o IEEE International Conference on Automatic Face and Gesture Recognition (FG), 2016(2)-2017(2)-2018(4)-2019(1).

  o IEEE European Conference on Computer Vision (ECCV) Workshops, 2014(2) - 2016 (2).

  o IEEE Computer Vision and Pattern Recognition (CVPR) Conference Workshops, 2016 (3).

  o IEEE International Conference on Computer Vision (ICCV) Workshops, 2015 (committee member).

  o IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2015 (5).

  o IEEE Transactions on Multimedia, 2014(1).

  o Journal of Machine Learning Research (JMLR), 2013(1) - 2014(2).

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

  o Mentor at the ImaginChallenge 2016. Obra Social La Caixa.

  o ECCV 2016 Workshop ChaLearn Looking at People: First Impressions.

  o CVCR&D 2016 Workshop: Computer Vision Center, Research and Development advances.

  o ECCV 2014 Workshop ChaLearn Looking at People: Gesture Recognition.

  o CCIA 2014 Member of the organization.

  o ICCV 2011 Member of the organization.

- **PARTICIPATION IN CONFERENCES AND SEMINARS:**

  o Digital Environment Stakeholder Workshop Meeting, 2019, Engineering House, Bristol

  o International Conference on Image Analysis and Processing (ICIAP), 2019.

  o European Conference on Computer Vision (ECCV) Person-In-Context Workshop, 2018.

  o British Machine Vision Association (BMVA) Symposium, Technical meeting in Computer Vision for Smart Environments and Assisted Living.

  o Bristol Vision Institute Research Colloquium, 2018. Participant and assistant.

  o >10 seminars from the Bristol Vision Institute, Visual Information Lab, and SPHERE, at the University of Bristol. Participation and assistant.

  o *Mobile World Congress*, Exhibitor Staff at the Big Data Innovation City (Hall 4), 2017, Barcelona.

  o *European Workshop on Reinforcement Learning (EWRL)*, 2016, Barcelona. Assistant.

  o *Intel Code Modernization Workshop* 2016, Barcelona. Assistant.

  o *Big Data Congress* and *Eurecat Mobile Forum* 2016, Barcelona. Participant and assistant.

  o 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.

  o Deep learning *Seminar meetups* at Polytechnic University of Catalonia (UPC) and Pompeu Fabra University (UPF), 2016.

  o *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 vídeo 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.

- o *Workshop CVCR&D* 2010. Assistant and Participant at the Computer Vision Center.

- o July Seminar 2010: *Recognizing Human Actions using Spatio-temporal Interest Points*. Assistant at the Computer Vision Center.

- **TEACHING:**

  - o Co-supervision of B.Sc and M.Sc Students. Thesis at University of Bristol, 2017-2018.

  - o 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.

  - o Co-supervision of Student's B.Sc. Thesis at University of Barcelona, 2013.

  - o Grant for Teaching Innovation Projects with code 2012PID-UB/152 from the University of Barcelona.

  - o 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.

  - o 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:**

  - o **Author** of **4 impact factor journals**, **17 conference proceedings** and **1 book chapter**.

  - o **>40 verified peer-reviews** in impact factor journals and international conference proceedings.

  - o **Runner up** for the CERCA Pioneer awards 2016**.**

  - o **Runner up** at the **Big Data Talent Awards**, Barcelona Big Data Congress 2016**.**

  - o **International Mention** and *Cum Laude* distinction for the **Ph.D. Thesis**.

  - o Obtention of **Honors** both for **B.Sc.** and **M.Sc. Theses**.

  - o **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.**