

Víctor Ponce López



Contact

vponcelop<at>gmail.com
victorponce.info
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 and member of the European Laboratory for Learning and Intelligent Systems (ELLIS). 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. I was affiliated to the Computer Vision Center -Autonomous University of Barcelona- and the Open University of Catalonia, in the groups HuPBA and SUNAI; and the group Qarma at the Laboratoire d'Informatique Fondamentale, Aix-Marseille Université.

experience

- 2017–Present **ELLIS Society & University of Bristol** Bristol, United Kingdom
*Member of the European Laboratory for Learning and Intelligent Systems (ELLIS).
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: 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:**

- **Member of the European Laboratory for Learning and Intelligent Systems (ELLIS).**
- 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 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.
- *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**.