Joaquim Bellmunt Montoya, Ph.D.

*Interested in technological innovations that respond to societal demands.
Data Mining, Internet of Things, and Cloud Computing.*

Singapore
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WORK EXPERIENCE

IMAGE AND PERVASIVE ACCESS LAB (CNRS UMI), *Research Assistant*   Jul 2014 - Nov 2017

Ph.D. Student attachment. I focus on Semantic Reasoning, Human Condition Computation and Context-Aware Service Delivery in Ambient Assisted Living deployments for Ageing in Place.
Ambient Assisted Living Framework presentation: UBISmart v4.0

Project Management

- **City4Age and Pulse (HORIZON 2020)** System Architect and Technical Project Manager in 2 Pilot sites (Singapore and Montpellier) in a European project focusing on the use of IoT technologies to help frail elderly to live with independence and safety. The technologies used include: Raspberry Pi, X10 and Z-Wave sensors and beacons; Cloud computing (AWS EC2and DigitalOcean), RESTFul and OpenData API aggregation; MQTT client and broker; code development on NodeJs, Python and Android; etc.

- **2017 Call for Projects HORIZON 2020**: Contribution in the technical work packages in a European project proposal for Aging and Wellbeing. The project focuses on the inclusion of new IoT technologies to enhance the quality of life of active aging (Mobile App, Connected Objects, and Open Data).

KPMG, *IT Auditor*   Nov 2013 - Apr 2014

Systems Auditor for annual audits in several multinational companies.

LIRMM, *Research Intern*   Mar 2013 - Sep 2013

Master Thesis Internship in Medical Robotics.

DEPT. OF SIGNAL THEORY AND COMMUNICATIONS, *Fellow Intern*   Feb 2011 - Jan 2012

Part of my responsibilities were the computer maintenance and support for all department staff.

EDUCATION

PHD. IN COMPUTER SCIENCE   Jul 2014 - Nov 2017
Institut Mines-Télécom, University of Montpelier (CNRS UMI), France

3 years Ph.D. Program in Computer Science.

ICT FOR HEALTH SPECIALISATION   Sep 2012 - Sep 2013
Institut Mines-Télécom, Université Montpellier, École des Mines d'Alès, Montpellier, France

Master Degree with Specialty in Information and Technology in the Health field.

MSC. IN TELECOMMUNICATIONS ENGINEERING   Feb 2012 - Sep 2013
ENS Telecom Bretagne, Brest, France

Double Master Degree program with TelecomBCN.

BSC AND MSC. IN TELECOMMUNICATIONS ENGINEERING   Sep 2005 - Jan 2012
TelecomBCN (ETSETB, UPC Barcelona Tech), Spain

Modules in Probability & Statistics, Data & Signal Processing, Telematics, Communications, *etc*.

SKILLS & INTERESTS

🇪🇸 Native Speaker

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🇫🇷 Bilingual

🇬🇧 Full Competence

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- **Semantic Reasoning**: Web 3.0, Rule-Based engine, OWL-RDF, N3.
- **Web**: NodeJs, Postgresql, REST, MQTT, SSH.
- **Languages**: JavaScript, Java, Python, Bash, R and Git.
- **Framework**: Domoticz (Z-Wave & X10), RasPi, Android, Ionic, Sails.
- **IDE**: Xcode, Eclipse, Matlab, Jupyter.

Sportive, specially Football, and Barça fan. Cinema, traveling, driving.

- Founder and Manager of two football teams in Singapore regrouping European people.
- Board member of Telecogresca in 2011 and 2012. Telecogresca is a student association, which organizes a music festival hosting every year more than 10.000 people. Former Vice-President of the sports student association at TelecomBCN, CET, which organizes every semester different sportive competitions, such as Football, Basketball or Volleyball.

PUBLICATIONS

- Kodys, M., Oliver, P., **Bellmunt, J.**, Aloulou, H., Kaddachi, F. & Mokhtari, M. Smart Mobility in Urban Assisted Living Environments. In *Information Integration and Web-based Applications & Services*, 2017. *Accepted*
- Kodys, M., **Bellmunt, J.**, Aloulou, H. & Mokhtari, M. Oh, wait, reasoning was wrong! Let's replay. In *Semantic Web Technologies for the Internet of Things*, 2017. *Accepted*
- **Bellmunt, J.**, Mokhtari, M., Abdulrazak, B., Aloulou, H. & Kodys, M. UbiFrailty: Ubiquitous Computational Frailty Model Towards an Adaptable Service Provisioning. In *Wireless Communications and Mobile Computing, Internet of Things and Smart Environments Supporting Healthy Ageing Services (Special Issue)*. Hindawi, 2017. *Under Review*
- Aloulou H., Endelin R., Mokhtari M., Abdulrazak B., Kaddachi F., **Bellmunt, J.** Activity Recognition Enhancement Based on Ground-Truth: Introducing a New Method Including Accuracy and Granularity Metrics. In *International Conference on Smart Homes and Health Telematics*. Springer, 2017.
- Sadek, I., **Bellmunt, J.**, Kodyš, M. & Mokhtari, M. Novel Unobtrusive Approach for Sleep Monitoring Using Fiber Optics in an Ambient Assisted Living Platform. In *Smart Homes and Health Telematics*. Springer, 2017.
- Kadachi, F., Aloulou, H., Abdulrazak, B., **Bellmunt, J.**, Endelin, R., Mokhtari, M. & M.Fraisse, P. Technological Approach for Behavior Change Detection toward Better Adaptation of Services for Elderly People. In *Health Informatics*. 2017.
- **Bellmunt, J.**, Mokhtari, M., Abdulrazak, B. & Aloulou, H. Agile Framework for Rapid Deployment in Ambient Assisted Living Environments. In *Information Integration and Web-based Applications and Services*. ACM, 2016.
- Aloulou, H., Abdulrazak, B., Endelin, R., Kadachi, F. & **Bellmunt, J.**. Detecting Inconsistencies in Rule-Based Reasoning for Ambient Intelligence. In *Engineering of Complex Computer Systems (ICECCS)*. IEEE, 2016.
- **Bellmunt, J.**, Mokhtari, M., Abdulrazak, B., Aloulou, H. & Kodys, M. Experimental Frailty Model Towards an Adaptable Service Delivery for Aging People. In *Engineering of Complex Computer Systems (ICECCS)*.IEEE, 2016.
- Aloulou, H., Abdulrazak, B., Endelin, R., Bentes, J., Tiberghien, T. & **Bellmunt, J.**. Simplifying Installation and Maintenance of Ambient Intelligent Solutions Toward Large Scale Deployment. In *Smart Homes and Health Telematics*. Springer 2015.
- **Bellmunt, J.**, Tiberghien, T., Mokhtari, M., Aloulou, H. & Endelin, R. Technical Challenges Towards an AAL Large Scale Deployment. In *Smart Homes and Health Telematics*. Springer, 2015.

COURSES & AWARDS

Courses
- Google Cloud Platform Big Data and Machine Learning Fundamentals, 2017 (Coursera)
- Semantic Web Summer School, 2015 (SWSS)
- Machine Learning,2014 (Coursera)
- OpenHPI, Semantic Web Technologies, 2013 (OpenHPI)

Awards

IOT HACKATHON, *I²R/A*STAR - ETPL - SIAA*   Apr 2015
First Runner Up at IoT Hackathon organized by I²R/A*STAR - ETPL - SIAA

REFEREES

PROF. MOUNIR MOKHTARI
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IPAL Director
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