

# Fátima Castro Jul

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Telecommunication engineer with a scientific background and international experience.

# Experience

09/2014 - ongoing

#### Researcher

atlanTTic Research Center, Universidade de Vigo

- Research areas: Internet of Things, smart cities, data analysis.
- Design of proximity communication solutions for context-aware mobile devices.
- Network simulations in ns-3 with realistic traces from SUMO and Bonnmotion.
- Analysis of social networks data using R.

03 - 05/2017

### Invited researcher

SAMOVAR Lab, Télécom SudParis (Francia)

• Design of fog architectures for distributed event-based systems.

## Education

09/2014 - 12/2018

## Ph.D. in Information and Communication Technologies

Universidade de Vigo

• **Predoctoral Fellowship** granted by Xunta de Galicia (ED481A-2016/214). Thesis: *Exploiting Proximity Collaboration in Mobile Context-Awareness* 

International Mention

09/2009 - 07/2014

Ingeniería de Telecomunicación (Telecommunication Engineering)

Universidade de Vigo, specialisation in Telematics.

5 years Degree (BSc+MSc) including: Radio Engineering, Signal Processing,

Electronics, Information and Communication Technologies.

**2013 - 2014** Erasmus. University of Oulu (Finlandia)

## Skills

Languages

• Spanish, Galician (Native). English (Fluent, C1). French (Upper-intermediate, B2). German (Intermediate, B1).

### Communication

- Written & oral communication. Presentations in international conferences. Peer-reviewed scientific publications.
- Communication with students during undergraduate teaching in Engineering and Telecommunication Technologies.
- Experience in multicultural environments. Research stay in France during Ph.D. Erasmus in Finland.
- Aptitude for language learning.

Organization

• Team and independent work. Collaboration with research teams from different universities. Participation in national research projects.

**Technologies** 

- Operating systems: Ubuntu, Windows
- Urban mobility: SUMO, Bonnmotion
- Programming: C, C++, Java, Bash, Python
- Web programming: HTML, JavaScript
- Tools: Office, LaTeX, Matlab

Other

- Analysis & problem solving.
- Easy adaptation to change.
- Desire for self-improvement.

• Network simulation: ns-3

• Data analysis: R

• Version control: git

• Databases: MySQL

• GIS: QGIS.

### **Publications**

- F. Castro-Jul, R. P. Díaz-Redondo, and A. Fernández-Vilas, "Collaboratively assessing urban alerts in ad hoc participatory sensing," *Computer Networks*, vol. 131, pp. 129–143, 2018.
- F. Castro-Jul, D. Conan, S. Chabridon, R. P. Díaz-Redondo, A. Fernández-Vilas, and C. Taconet, "Combining fog architectures and distributed event-based systems for mobile sensor location certification," in *International Conference on Ubiquitous Computing and Ambient Intelligence (UCAmI)*, pp. 27–33, Springer, 2017.
- F. Castro-Jul, A. Fernandez-Vilas, and R. P. Diaz-Redondo, "How should my device behave now? Adapting consensus protocols for autonomous context management," *Journal of Computers*, vol. 12, no. 3, pp. 200–2011, 2017.
- F. Castro-Jul, R. P. Díaz-Redondo, and A. Fernández-Vilas, "Have you also seen that? Collaborative alert assessment in ad hoc participatory sensing," in *International Conference on Ubiquitous Computing and Ambient Intelligence (UCAmI)*, pp. 125–130, Springer, 2016.

# Participation in research projects

- MAGOS: Secure sMArt Grid using Open Source Intelligence. (2018-2020). Spanish Ministry of Economics, Industry and Competitiveness. Proyectos de I+D+I del programa estatal de investigacion, desarrollo e innovacion orientada a los retos de la sociedad (TEC2017-84197-C4-2-R).
- INRISCO: INcident monitoRing In Smart COmmunities (2015-2017). Spanish Ministry of Science and Innovation. Proyectos de I+D+I del programa estatal de investigacion, desarrollo e innovacion orientada a los retos de la sociedad (TEC2014-54335-C4-3-R).
- EMRISCO: EMergence Response In Smart Communities (2014). Spanish Ministry of Science and Innovation. Proyectos de I+D+I del programa estatal de investigacion, desarrollo e innovacion orientada a los retos de la sociedad (TEC2013-47665-C4-3-R).

### Other

Willing to travel Driving license B