# #Forestry #Research #GIS #Remote Sensing #LiDAR

# Luis Puerto

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#### **Profile & Objective**

I am a dynamic and versatile Forest Engineer from Spain with more than 10 years of diverse and wide experience in GIS and remote sensing. I have been working lately on research projects involving LiDAR, biomass and R language. I have experience working internationally, in different fields related to technology and interdisciplinary teams. I have great ability to learn, and I have an analytical mind. I am mainly looking for challenging projects related to GIS, remote sensing technologies and new ways to acquire data where I can use my background and skills, learning new ones in the process.

# **Education**

Ongoing: MSc. iGEON. Master of Science in Geographic Information Science (GIS) and Earth Observation for Environmental Modeling and Natural Resource Management. (120 ETCS | Online) (http://www.igeon.eu) Lund University (Sweden) and University of Twente (Netherland)

2012: Degree in Forestry and Environmental Engineering (240 ETCS), University of León, Spain.

2008: Bachelor of Agricultural Engineering (Forestry) (180 ETCS), University of León, Spain.

# **Experience**

### 2015-2017: University of Easter of Finland. Various LiDAR projects. 9 months.

- Download, processing and analyzing the whole LiDAR information of Finland using Fusion, LAStools and others.
- Scripting in R language to process and analyze LiDAR data. Statistical modeling to yield biomass estimations.
- Reference research and scientific writing about LiDAR and biomass estimation.

#### Nov 2014: Metsäkeskus. Finnish language course internship. Creation of digital cartography

Analyzing and processing Metsäkeskus' inventory data in Finnish to create digital cartography.

# 2014-2016: Intensive Finnish Language Courses.

• I took 3 courses, which were more than 1500 hours in total, about Finnish language and culture

# May 2009 - Dec 2012: Fundación Ciudad de la Energía (City of Energy Foundation), Spanish Government.

- Last position: Coordinator of Technology & Innovation Area at Technology & Systems Department
- Leader of a multidisciplinary team of four members related to technology and programming.
- Co-responsible to commission the digital platform for the Ene. Museo Nacional de la Energía. 1-million-euro project.
- Develop, implement and commission different kinds of **technological systems** such as public Wi-Fi networks, ticket-selling systems, geolocation systems for people and objects, and cloud computing systems.
- Responsible of the **Geographic Information Systems (GIS)**. Cartography elaboration (such as two tourism maps, web apps or in-house cartography), data analysis, geodatabase keeping and in-house GIS training.
- Responsible of the office tasks of "Current pest measurement of European chestnut from El Bierzo (León, Spain)"
  project; managing field work, inventory operations, and data processing and analysis.
- Collaborator in several projects:
  - Heritage Inventory of El Bierzo and Laciana Counties. Helping to plan field works, develop the inventory and coordinate and create a database. Also, subsequent analysis of data using GIS methodologies.
  - La Mirada Circular (more than 300 km of hiking routes): Help to organize activities, signaling, mapping and managing.
  - Lots of other activities about environment, alternative and clean energies, tourism and territory analysis.

# 2009: Freelance consultant for TRAGSATEC; collaborate in the preliminary plan for the Pajariel Forestry Park.

- Collecting data in field, team organization, and cartography elaboration.
- GIS multi-criteria analysis of data, develop and analysis proposals of restoration and activities for the park.
- Analysis of potentialities and the development of citizen participation process.

## 2005-2011: Several projects as freelance such as:

- Development of Geographic Information Systems in ArcGIS, ArcPAD & ArcView and blueprints in AutoCAD.
- Experience as a judicial expert in court and writing a judicial report for one side.

# 2007-2008: Ponferrada Municipality (9 months) at the project "Integral Management of the Ponferrada's Mountains". Forest and office technician and consultant:

- Forest inventory of more than 12000 ha, in-filed decision making about forest management and GIS analysis of data.
- Co-writing of strategic management report for the forest for the following 10 years.

# 2006: Tecnosylva SL. (6 months). Forest technician and consultant:

- Inventory of forest roads, with GPS, ArcPAD, and off-road vehicle. Over 2000 km.
- Cartography generation and digitalization in ArcGIS software.
- Collecting data in field with professional GPS. Advanced knowledge of GPS methodology.
- Forest inventory with computing systems such PDA, Vertex, and electronic caliper.

#### **Additional Training**

- 300 hours of training courses on ArcGIS 10 Desktop and Server systems, including Oracle DDBB and programming in python and add-ins, by ESRI Spain
- Course **Sextante** (GIS toolbox) by Uni. of León (20 hours).
- Course "Thematic Cartography", by the Spanish National Geographic Institute (40 hours).
- Course of "Learn to Program: The Fundamentals" in Python, by University of Toronto (50 hours).
- Course "Certification and Audition Systems in forest exploitations" by PROFOR (144 hours).
- Course of Fire Management, by Swedish University of Agricultural Sciences (SLU) (200 hours).

- Course AutoCAD 2011 2D & 3D, by IFESS (40 hours).
- Course "Health and Safety on forest exploitations" by PROFOR (144 hours).
- Course "Defending Forest Against Wildfires", by the Spanish Forest Engineers Official Association (30 hours).
- Course about **Biomass** by CARTIF Foundation (60 hours).
- Course "Forest Planning", by Castile and León Government (50 hours).
- Course on **Project Management** by Adecco (15 hours)
- Course of Wonderware by Wonderware Spain (35 hours).
- I've assisted to many others talks, seminaries, conferences and congresses at local, national and international level.

# Languages

Spanish: Native Speaker

• English: Advanced level. TOEFL iBT score 96

Finnish: A2Swedish: A1

# **Computing Skills**

ArcGIS

R (statistical language)

AutoCAD

Fusion

Photoshop

Git and version control

Experience in Mac OS X, Windows & Linux environments

Experience in scripting, databases and web developing

# **Complementary Activities**

- Self-learner about Project Management and personal Productivity. Curious about "Fifth Discipline", "Systems Thinking",
   "Learning Organizations", new ways of learning and similar subjects.
- Very interested in social media and the new ways of communicate ideas.
- Science and technology lover. Rational thinker. Always trying to implement technology to be me more efficient.
- Photography enthusiasm and eager learner of almost everything.
- I like the adventure, hiking and camping in the wilderness.
- · Volunteering in the Albany Historic Carrousel

#### **Other Data**

International driving license and off-road experience

Availability for traveling all around the world

# References

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Last update: Thursday, August 3, 2017