Enrique Cornejo Montoro

enrique@cornejo.me +34 677 33 45 03 e.cornejo

Abstract

Environmental quantitative biologist with a background in software development. Proficient in statistical data analysis, experimental design, image analysis, remote sensing and geographic information systems. Experience in web application design and development, server administration and database design and management.

Work experience

2016 – Developer at SkanSense

As the first employee at SkanSense, a startup participating in the first promotion of the Business Incubation Centre of the European Space Agency (Madrid Region), I developed processes and techniques for target detection based on machine learning technologies; programmed map-based web applications and managed the cloud computing infrastructure of the company.

2012-ongoing – Honorary member at the Ecology Dpt. (Complutense University, Madrid)

I provide technical support to the research activities of the System Dynamics Group. My duties involve maintaining databases and statistical analysis for the global change research line. I also work in the photo lab, where I've designed experimental devices for automated image analysis and photogrammetric capture of biological specimens.

2009-2012 – Software developer at Tragsa
2012-2015 – Consulting for the OAPN

I developed a Decision Support System, implemented in a web application for the optimization of management in natural protected areas. Initially acting as the liaison between the scientific and development teams, I ended up assuming the role of main architect of the application. Afterwards, I administered this system for the National Parks Autonomous Agency (Organismo Autónomo de Parques Nacionales, Spanish Ministry of the Environment), where I've built digital terrain models, designed monitoring programs for species at risk and implemented protocols for experimental data analysis.

Education

2012-ongoing – PhD program, Complutense University

Mi dissertation describes the use of formal techniques for the efficient conservation in natural protected areas. These techniques include decision theory, multiple criteria analysis, Monte Carlo simulation, numerical analysis of dynamical systems, graph theory, or appraisal of model sensitivity.

2012-2014 – MS in Ecology, Autonomous University

I further explored the possibilities of data analysis and quantitative techniques, applied to the conservation of biological diversity.

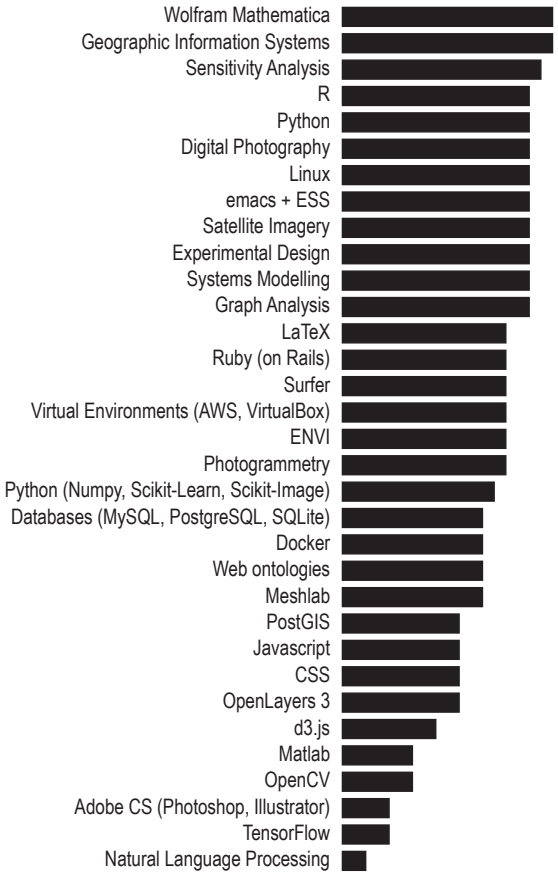
2007-2008 – M1 in Bioinformatics, Structural Biochemistry and Genomics, University of Aix-Marseille 2)

I became proficient in Python and Perl applied to the analysis of large genomic datasets. I worked with ontologies and semantic models for the description of complex interactions in cancer-related pathologies.

2004-2008 – BS in Biology, Complutense University
2008-2011 – MS in Biology, Complutense University

Initially pursuing a career as a biochemist, I developed a very quantitative profile that took me to close collaboration with the System Dynamics Group at the Ecology Department, where I mainly worked in numerical simulation techniques.

Skills



Publications

Opportunities for GHG emissions reduction in road projects: a comparative evaluation of emissions scenarios

2015. Journal of Cleaner Production, 104, 156-167.

I contributed to the design of a database of greenhouse gases emissions, and designed a series of scrapers to feed it. I also maintain part of the software architecture in the software employed for the calculations in this paper.

Conceptual basis for an integrated system for the management of a protected area. Examples from its application in a Mediterranean area

2016. Journal of Environmental Management, 166, 237-249.

Main author. I describe the design and implementation of a decision support system for the efficient management of a protected area, along with the theoretical basis for this design.

Enlaces

CV (PDF) *Contact (VCard)* *cornejo.me*