PERSONAL INFORMATION

César Rodríguez Pereira

MSc Civil Engineer

C/Hermanos Granda Nº8 3ºB. 33630 Pola de Lena, Asturias (Spain).

+34 665 747 123

rodriguezpereira.cesar@gmail.com

Sex Male | Date of birth 10/04/1993 | Nationality Spanish

WORK EXPERIENCE

February 2016 - Present

R&D Engineer

Hydrogeophysics and NDT Modelling Unit, University of Oviedo

- Hydrogeological modelling using FEM/FDM software (COMSOL Multiphysics, MODFLOW, Soilvision)
- Projects involving mine tailings drainage, variably saturated groundwater modelling, two-phase flow, contaminant transport.
- Field support in geophysical surveys involving the use of GPR, ERT and TDEM.
- Scientific oriented work, involving informative activities (classes, conferences), data management and visualization with GIS**,** and bibliographical research.

October 2014-January 2015
June 2015

Private Tutor

Academia Técnica, Mieres

- Subject: Computing Fundamentals (basic Python programming and databases).
- Over 60 teaching hours for a group of 7-10 first year engineering students.

EDUCATION AND TRAINING

2017 - 2019

MSc. in Civil Engineering

University of Oviedo

- Two-year master's degree covering subjects such as urban planning, advanced mathematic and numerical modelling, wastewater treatment, geophysical surveying, GIS and remote sensing.
- Water technologies specialization.

2011 - 2017

BSc. in Civil Engineering Graduate

University of Oviedo

- Dual specialization in hydrology and civil constructions.
- Wide scope degree, spanning subjects as diverse as geology, fluid mechanics, materials science, structural calculus, **soil mechanics** and marine structures.
- Strong mathematical foundation.

PERSONAL SKILLS

Mother tongue(s) Spanish

Other language(s) English. C2 (EFCELT), C1 (Official School of Languages).

French. Basic written understanding.

Communication skills

- Accustomed to working in multidisciplinary projects, having had to work with geologists, physicists, mathematicians and other engineers while at the Hydrogeophysics and NDT modelling unit.
- Strong foundation on making clean and informative data visualizations, given by a science-oriented background.
- Comfortable speaking to large audiences.

Organisational / managerial skills

- Strong sense of organisation and planning, while maintaining the ability to adapt to changing situations (i.e. having to switch to another modelling software while maintaining the project delivery date).

Job-related skills

- Good hydrogeological modelling knowledge.
- Ease to learn new programming languages and computing processes due to continuous work with different types of software involving scripting.
- Strong foundation of deterministic modelling, and ease to comprehend other types of mathematical problems.
- Basic knowledge of NAPLs flow physics.

Digital skills

- Proficient Office Suite User
- Comfortable with many groundwater modelling programs.
- Experience programming MATLAB both for modelling and data visualization.
- Experience with Python, both programming and teaching.
- Good command of Geographic Information Systems (GIS), especially using ArcGIS.
- SQL experience obtained through the creation and use of geodatabases.
- Experience using AutoCAD and similar engineering software.
- Comfortable with the Linux environment.

Driving licence

B

ADDITIONAL INFORMATION

Presentations

- Two times speaker at University of Oviedo's "Jornadas de I+D+I en Ingeniería Civil", regarding groundwater FEM modelling with COMSOL Multyphysics.

Publications

- Co-author: Alonso Iglesias, G. et al. (2019). Regeneración ambiental y nuevos usos de los baldíos industriales en el eje fluvial de Langreo. *Naturalia Cantabricae 7(1): 1-14.*
- Editor: Libro de resúmenes de las 2as Jornadas de Investigación, Desarrollo e Innovación en Ingeniería Civil (JIDIIC2018).

Certifications

- Fundamentals of GIS by University of California, Davis on Coursera. February 2017.
- GIS Data Formats, Design and Quality by University of California, Davis on Coursera. August 2017.
- III Hidrogeologic Modelling course, Oviedo (España). 28 hours. AIH-GE. July 2018.
- Introduction to Data Science in Python by University of Michigan on Coursera. May 2019.