julio a. corchado lópez

IT internal audit | PhD | FRM

contact

(image redacted)
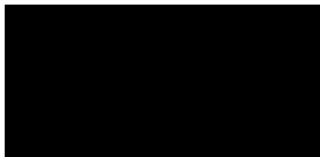
languages

spanish native
english fluent
french basic

programming

Python, C++
MATLAB, R
ACL

software

Wireshark, Postman
Qlik Sense, GIT
pandas, sci-kit
LaTeX, MS Office
Flask

certifications

FRM (Financial Risk
Manager)
OSCP (ongoing)

experience

Full Time

11/22–Now **Telefónica**   Madrid, Spain
IT Network Internal Audit Team Lead
Leading IT audit projects at the corporate scale: planification and execution.
Detailed achievements:
- Development of a rating prediction tool for audit reports using NLP models
- Security assessment of the SS7 signaling network
- Security specifications for an automated configuration analysis tool for network devices
- Audit on the Open Gateway corporate framework

03/22–11/22 **Telefónica**   Madrid, Spain
Internal Audit Expert in Data Analytics
Execution and Development of internal audit digitalization projects.
Detailed achievements:
- Outlier detection via AI engines (based on isolation forests) in an IFRS16 framework
- Dashboard design and development: Journal Entries, Forms, etc.

11/18–03/22 **BBVA**   Madrid, Spain
IT Internal Audit
Conduct of internal audit projects in a full-Agile working environment.
Detailed achievements:
- Analysis of outsourcing projects
- Full review of Corporate & Investment Banking Department - FO to BO
- Big data analysis on a wide array of fields
- Writing of executive reports
- Compliance assurance

07/14–05/17 **Universidad de Málaga**   Malaga, Spain
R+D activities
Upgrade of an experimental SIMO communication system for shallow underwater channels.
Study of transmission techniques in last-mile DSL scenarios and other consulting services for Marvel.
Detailed achievements:
- Analysis of previous measurement campaigns
- Development of new features and system parameter tuning
- Design and development of the software tool (C++)
- Management of project drafts and documents (LaTeX)
- Planning and conducting a measurement campaign crash course
- Collection, sorting and processing diverse-source channel and noise data (Excel, MATLAB)
- Device characterization with network analyzers
- Measurement analysis (Machine learning, Python) and adapted system simulations (MATLAB)

Part Time

02/13–12/13 **Universidad de Málaga**   Málaga, España
Research support
Performance evaluation of OFDM transmission systems for PLC channels, through analysis of channel and noise data (Excel, MATLAB).

education

03/15–03/24 **PhD** in Telecommunications   Universidad de Málaga, Málaga
Thesis: Study of MIMO techniques for Power Line Communications
This thesis delves into the features of wired MIMO channels by exploring their characterization and techniques for exploiting them.
The defense of this thesis took place on March 2024 obtaining the **Cum Laude** mention.

09/07–06/13 **MSc** in Telecommunications   Universidad de Málaga, Málaga
Specialization in Communications
- 09/11–07/12   1 year stage in l'École Polytechnique Fédérale de Lausanne - EPFL', Switzerland (ERASMUS programme)
- 06/13–06/14   Final project: MIMO-PLC Channel Generator based on MTL