

# Adelo Vieira, Developer/Data Scientist

47a Phibsborough Rd  
Dublin, Ireland

+353 8 52 40 72 08

adeloaleman@gmail.com

LinkedIn GitHub

ENGLISH: Fluent

FRENCH: Fluent

SPANISH: Native

PORTUGUESE: Intermediate

[Click here for an extensive online version](#)

BSc. (Hons) in Information Technology. I'm also a Geophysical Engineer and MSc in Petroleum Geoscience with strong mathematical, problem-solving, and analytical skills. I'm currently particularly interested in Data Analytics and Software Development.

Proficient in multiple programming languages, including Python, Java, JavaScript, SQL, and R. I have a huge interest in Machine Learning and Natural Language Processing. I've been recently working in areas such as Text classification and Sentiment Analysis. I have solid knowledge in several ML algorithms (Naive Bayes, Decision Trees, K-Nearest Neighbour) and Time Series Analysis. I have experience working with Python (Pandas, NLPTK, Scikit-learn, SciPy, Plotly, TextBlob, Vader Sentiment), R, and RapidMiner.

Solid academic experience in Object-oriented programming and Web Development. I have developed several academic projects using Java, React, Node.js (Express.js), and Dash.

I also have advanced experience with Linux (including Shell Scripting) and excellent academic experience in Relational Databases (SQL, MySQL, PostgreSQL) and cloud computing (AWS / Google Cloud).

## Skills and Qualifications

Software Development	Data Science	Other qualifications
<ul style="list-style-type: none"><li>◆ Some of the languages I've worked with<ul style="list-style-type: none"><li>• Python, Java</li><li>• JavaScript, HTML, CSS</li><li>• SQL, Shell scripting, R, PHP, C, L<sup>A</sup>T<sub>E</sub>X</li></ul></li><li>◆ Object-Oriented Concepts and Constructs<ul style="list-style-type: none"><li>• SOLID Principles, Fundamental OOP concepts</li><li>• Nested classes, Upcasting - Downcasting</li><li>• <b>Object Orientation with Design Patterns</b></li></ul></li><li>◆ Data Structures &amp; Algorithms</li><li>◆ Web Development<ul style="list-style-type: none"><li>• React, Node.js (Express.js), Dash - Plotly, Ruby on Rails</li></ul></li><li>◆ Mobile Development<ul style="list-style-type: none"><li>• Cordova - PhoneGap</li><li>• Ionic - Capacitor</li></ul></li></ul>	<ul style="list-style-type: none"><li>◆ Descriptive Data Analysis</li><li>◆ Correlation &amp; Simple and Multiple Regression</li><li>◆ Naive Bayes, Decision Trees, K-Nearest Neighbour</li><li>◆ Association Rules, Clustering, Time Series Analysis</li><li>◆ Model Evaluation</li><li>◆ Text Analytics<ul style="list-style-type: none"><li>• Natural Language Processing</li><li>• Sentiment Analysis</li></ul></li><li>◆ Python for Data Science<ul style="list-style-type: none"><li>• NumPy, Pandas, NLPTK, Scikit-learn, SciPy, TextBlob, Vader Sentiment</li><li>• Data Visualization, Dash - Plotly</li><li>• Scrapy</li></ul></li><li>◆ R, RapidMiner, Jupyter</li></ul>	<ul style="list-style-type: none"><li>◆ <b>Databases</b><ul style="list-style-type: none"><li>• Database design:<ul style="list-style-type: none"><li>* Entity relationship modelling &amp; The Enhanced Entity-Relation Model</li><li>* Relational Model, Normalisation</li></ul></li><li>• RDBMS<ul style="list-style-type: none"><li>* MySQL: Stored Procedures, Triggers, Events, Cursors, Transactions, Exception Handling</li><li>* PostgreSQL</li></ul></li><li>• GUI DB administration tools<ul style="list-style-type: none"><li>* MySQL Workbench, PhpMyAdmin, SQLLectro</li></ul></li></ul></li><li>◆ <b>Cloud Computing</b><ul style="list-style-type: none"><li>• AWS, Google Cloud</li></ul></li><li>◆ <b>Linux</b><ul style="list-style-type: none"><li>• Advanced experience with the most popular flavors of Linux: Debian, Ubuntu, Red Hat, CentOS</li><li>• LAMP Administration: Apache, MySQL, PHP</li><li>• Remote Management with SSH, Backups</li><li>• Shell Scripting</li></ul></li></ul>

## Work experience

Present



2022

### IDG Direct, Ireland

#### Real Time Data Analyst

I'm responsible for analyzing and monitoring call center data. This includes call volumes, performance indicators, queue time, agents availability, inactivity levels, average handle times, etc.

- Finding patterns and trends in the data to help increase productivity and forecast requirements.
- Generate ideas for process and service improvement.
- Produce daily, weekly, and monthly internal reports to assist with the creation of metrics and targets for services.
- Work closely with the operations team to analyze and help improve their delivery processes.
- Python programming for data analysis and data visualization: Pandas, Scikit-learn, Plotly, Dash.
- Data Management in Excel.

2022



2017

## **IDG Direct, Ireland**

### ***Business Development Executive***

- Lead Generations:
  - I represent IDG services by carrying out professional outgoing calls to prospective clients. I have to establish and maintain a professional conversation with IT Managers to identify their needs and next investments.
  - I'm the top performance on my team. I work in different markets and contact clients in French, English, and Spanish.
  - Gathering client details and Maintaining/Updating IDG database with accurate client details.
- Train new team members and provide ongoing training:
  - Motivating, developing, and training staff at a BANT level.
  - Script delivery and how to effectively communicate.
  - How to construct specific campaign questions that encourage the prospect to expand on information.
- Monitoring team members on a daily basis, providing support and encouragement where necessary to ensure all service levels and KPIs are reached.
- Ensure Key Performance Indicators (KPIs) are met and constantly improved.
- Collaborating with the Team Manager in the recruitment process of new agents.
- As part of my professional development at IDG, I have completed a Certified Sales training. This course addressed the most important aspects of the sales process.

## **WikiVox, France**

### ***Web Programmer***

I was responsible for the installation and administration of a Wiki Web Application based on the MediaWiki engine.

- Extensive experience with the MediaWiki Engine:
  - \* Configuration of a Multilingual *Wiki*.
  - \* User access levels configuration.
  - \* Implementation of different CAPTCHA methods.
  - \* Implementation of a payment gateway.
  - \* Page categorization.
  - \* Take a look at my personal Wiki: [http://perso.sinfronteras.ws/index.php/Computer\\_Science\\_and\\_IT](http://perso.sinfronteras.ws/index.php/Computer_Science_and_IT)
- Administration of a Linux Server:
  - \* Installation and configuration of a LAMP stack: Apache, MySQL, PHP.
- Database management: MySQL, PhpMyAdmin.

2012



2011

## **Simón Bolívar University - Funindes USB, Venezuela**

### ***Research geophysicist of the Parallel and Distributed Systems Group (GRyDs)***

[Click here to see some examples of my work in Seismic modelling.](#)

As a Research Geophysicist, I was responsible for performing a set of Signal analysis/Data processing tasks, and ensuring the correct integration and implementation of geophysical applications into a computer cluster platform. One of my main activities was shell script programming for Seismic Modeling and Processing.

- My responsibilities include:
  - \* Shell script / Python / MATLAB programming for seismic data processing and modeling.
  - \* Task automation using Shell scripting.
  - \* Simulations of seismic waves propagation: Wavefront and ray tracing.
  - \* Generation of pre-stacked synthetic seismic data using wave propagation theories (raytracing and finite difference methods).
  - \* 2D/3D Seismic data processing.

2011



2010

## **CGGVeritas, Venezuela**

### ***Seismic data processing analyst***

I was responsible for performing Signal analysis/Data processing and Borehole data Analysis for oil and gas exploration.

- Demultiplexing, Reformatting (SEG -Y/SEG -D).
- Seismic data edition: Searchin for noisy, monofrequency and incorrect polarities traces.
- Geometrical spreading correction. Set-up of field geometry. Geometry QC.
- Application of field statics corrections, Deconvolution, trace balancing.
- CMP sorting, Velocity analysis, Residual statics corrections.
- NMO Correction, Muting, Stacking, Filtering. Filtering: Time-variant, band-pass.
- Post-stack/Pre-stack time and depth migration.
- Numerical modeling of seismic wave propagation
- **Borehole data Analysis:** Learning algorithms for estimating reservoirs properties / reservoirs classification.

2010

↑

2008

**Simón Bolívar University, Venezuela*****Academic Assistant - Earth Sciences Department***

As an Academic Assistant, I was in charge of collaborating with the lecture by teaching some modules of the Geophysical Engineering program at Simón Bolívar University. I was usually in charge of a group of between 20 and 30 students during theoretical and practical activities.

- This experience has contributed to my professional development in two major areas:
  - \* By teaching modules, I have enhanced my technical geophysical knowledge.
  - \* I have also developed communication and presentation skills, as well as the leadership strategies needed to manage a group of students and to transfer knowledge effectively.
- Courses taught:
  - \* Seismic data processing: Concepts of discrete signal analysis, sampling, aliasing, and discrete Fourier transform. Conventional seismic data processing sequence.
  - \* Seismic methods: The convolutional model of the seismic trace. Propagation and attenuation of seismic waves. Interpretation of seismic sections.
  - \* Seismic reservoir characterization: Relations between the acoustic impedance and the petrophysical parameters. Well-Seismic Ties. Seismic inversion and AVO.

**Education**

2020

**College of Computing Technology (CCT), Ireland*****Diploma in Predictive Data Analytics***

- Grade of **Distinction**.
- Project: Evaluating the Performance of Lexicon-based and Machine Learning Sentiment Analysis for Amazon reviews classification.

2020

**College of Computing Technology (CCT), Ireland*****Bachelor of Science (BSc) (Honours) in Information Technology***

- Final year project: Developing a Web Dashboard for analyzing Amazon's Laptop sales data.  
To know more about this project, visit [Developing a Web Dashboard for analyzing Amazon's Laptop sales data](#)

2019

**College of Computing Technology (CCT), Ireland*****Bachelor of Science (BSc) in Information Technology***

- Final year project: Supervised Machine Learning Models for Fake News Detection.  
To know more about this project, visit [Supervised\\_Machine\\_Learning\\_for\\_Fake\\_News\\_Detection](#)

2014

**Claude Bernard Lyon 1 University, France*****Master – Complementary computer studies***

- Specialty: Distributed information systems and networks.
- Final year study project: Design and Administration of a Wiki Web Application.

2011

**Simón Bolívar University, Venezuela*****MSc in Earth sciences***

- Specialty: Applied Petroleum Geoscience.
- Master thesis project (**Excellence Honor Mention**): Study of Pull up/Push down effects through seismic modelling, colombian plains.

2007

**Simón Bolívar University, Venezuela*****Geophysical Engineer***

- Bachelor thesis project: Basic modelling of pre-stacked seismic data and its corresponding processing sequence, using Seismic Unix package.

## Portfolio

- ◆ **Developing a Web Dashboard for analyzing Amazon's Laptop sales data** [\[Project page\]](#)
  - Try the App at <http://dashboard.sinfronteras.ws>
  - Github repository: <https://github.com/adeloaleman/AmazonLaptopsDashboard>
  - A demo video is available at <https://www.youtube.com/watch?v=WrvEoA9DD4g>
- ◆ **Supervised Machine Learning for Fake News Detection** [\[Project page\]](#)
  - <http://fakenewsdetector.sinfronteras.ws>: This is the link to a Web Application that has been created to easily interact with the Machine Learning Models created. It allows us to determine if a News Article is Fake or Reliable by entering the text into an input field. The input text will be processed by the Machine Learning Models at the back-end and the result will be sent back to the client. This Web App was created using Shiny, an R package that can be used to build interactive web apps straight from R.
  - <https://github.com/adeloaleman/RFakeNewsDetector>: This is the link to a Github repository that contains a R Library we have created to package the Machine Learning Models built. This package contains essentially three functions: `modelNB()`, `modelSVM()` and `modelXGBoost()`. These functions take a news article as argument and, using the Models created, return the authenticity tag («fake (1)» or «reliable (0)»).
- ◆ **Social Media Sentiment Analysis using Twitter Data** [\[Project page\]](#)
- ◆ **Java Desktop App - Zoo Management System** [\[Project page\]](#)

In this project, we have created a GUI Java (Swing) Application for a Zoo Management System.

  - You can try the application by downloading the Java Jar file from this link: [ZooManagementSystem.jar](#)
  - Github repository: [github.com/adeloaleman/JavaDesktopApp-ZooManagementSystem](https://github.com/adeloaleman/JavaDesktopApp-ZooManagementSystem)
- ◆ **Java Desktop App - Stock Market Simulator** [\[Project page\]](#)

In this project, we have created a GUI Java (Swing) Application that simulates a trading day of a simplified model of a stock market.

  - You can try the application by downloading the Java Jar file from this link: [SMSimulator.jar](#)
  - Github repository: [github.com/adeloaleman/JavaDesktopApp-StockMarketSimulator](https://github.com/adeloaleman/JavaDesktopApp-StockMarketSimulator)
- ◆ **eCommerce Web Application for an optical glasses retailer** [\[Project page\]](#)
  - Visit the Web App at <http://www.vglens.sinfronteras.ws/>
  - This Application was developed using Python-Django Web framework
- ◆ **Web App - Clone of Twitter** [\[Project page\]](#)
  - Visit the Web App at <http://62.171.143.243>
  - Github repository: <https://github.com/adeloaleman/WebApp-CloneOfTwitter>
  - This Application was developed using:
    - \* Back-end: Node.js (Express) (TypeScript)
    - \* Front-end: React (TypeScript)
- ◆ **Automatic backup in the cloud using shell scripting** [\[Project page\]](#)
- ◆ **Seismic Wave Propagation Modelling** [\[Project page\]](#)

## Papers and Publications

- ◆ **Adelo Vieira and Crelia Padrón.**

Analysis of pull up effects through computational seismic data modeling and depth migration, Colombian plains. [↓Download](#)
- ◆ **Alejandro Gutiérrez, Evert Durán, Adelo Vieira and Crelia Padrón.**

Estimation and modelling of reservoirs properties through seismic attributes and geo-statistics in gas fields, southern Spain. SOVG, XIV Venezuelan Geophysics Congress, 2008. [↓Download](#)

## Honors and awards

- ◆ **2021** - Employee of the year (IDG Direct, Dublin).
- ◆ **2020** - Diploma in Predictive Data Analytics completed with an overall grade of **Distinction** (CCT College, Dublin).
- ◆ **2011** - Master thesis project graded as **Excellence Honor Mention** (Simón Bolívar University, Caracas).

## Interests and other activities

- ◆ **Member of the water polo team at Simón Bolívar University:** Attendance at 5 National University Games.
- ◆ Swimming instructor at U.E.U.S.B school.
- ◆ Open-source software.
- ◆ Travel, Volleyball, Open-Water Swimming.