

# ANED ESQUERRA ARGUELLES

## DATA SCIENTIST & ANALYST

@ anedesquerra@gmail.com @ aned.esquerrargls@uanl.edu.mx +52-8118935126  
Av. Universidad S/N, Ciudad Universitaria, 66451 San Nicolas de los Garza N. L., Mexico  
in anedesquerra anedesquerra



## WORK EXPERIENCE

### Data scientist & Data engineer – freelanced

#### THREAD Solutions

July 2018 – Ongoing

Monterrey, Nuevo Leon

- Leading data science projects using ranking methodologies with fuzzy data for data analysis.
- Design, development, maintenance, and administration of DBMS based on MySQL, and SQL Server systems.
- Leveling up companies' data science department members in data analysis techniques, data science, and machine learning.

### Data Science Researcher & Advanced Calculus Full

#### Professor

#### University Corporation of Meta - UNIMETA

February 2014 – July 2018

Villavicencio, Meta

- Lecturing Advanced Mathematics topics for engineering careers students.
- Lead researcher of projects involving in data science, machine learning, deep learning, and other statistical methods and techniques.

### Senior .NET Developer & IT Consultant Specialist

#### Openclick International Inc.

January 2010 – July 2016

Villavicencio, Meta

- Project leader on application design and development projects.
- Lead developer of web applications over .NET frameworks.
- IT Ad-hoc consulting.

## EDUCATION

### MSc. de Engineering of Systems

#### UANL - Autonomous University of Nuevo Leon

August 2018 –

San Nicolas de los Garza, N.L, Mexico

### MSc. in Technological Management

#### UDES - University of Santander

May 2018 –

Bucaramanga, Santander, Colombia

### Especialization in Educative Computing Management

#### UDES - University of Santander

June 2014 – June 2015

Bucaramanga, Santander, Colombia

### BSc. in Computer Science

#### UCLV - Central University of Las Villas

September 1993 – June 1998

Santa Clara, Villa Clara, Cuba.

## PERSONAL STATEMENT

*"Without data, you're just another person with an opinion."*

## SOFT SKILL PROFILE

Leadership & Team-working

Oral & written communications skills

Creativity & critical thinking

Emotional intelligence

Adaptability

Continuous learning & self-study

## HARD SKILL PROFILE

Python programming

R programming

Data scientist

Data engineer

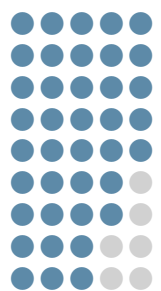
Data analyst

Machine learning

Web design

Deep Learning

Big data & data mining



## LANGUAGES

English

Spanish

French



## PROYECTOS

### Macro-project: Management and control plan for Lepidoptera in the Colombian llanero ecosystem

UNIMETA - University Corporation of Meta

📅 Project duration 📍 November 2019 - December 2020

- **Data scientist & machine learning engineer:**
  - Design of CNNs and RNNs to classify species of endangered Colombian butterflies.
  - Analyzing chronological data about Colombian butterflies' life-cycle to infer variability patterns using data science techniques.

### Mathematical and statistical models for forecasting student dropout based on data from ICFES exams and UNIMETA's internal admission assessments

UNIMETA - University Corporation of Meta

📅 Project duration 📍 November 2019 - December 2020

- **Lead researcher:**
  - Coordination of IT department for information extraction.
  - Supervision of survey teams' for complementary information gathering related to the research.
  - The design and adjustment of the research methodology and experimental analysis during the entire investigation process
- **Data scientist:**
  - Characterizing the process of drop-out in different engineering careers.
  - Exploratory and inferential analysis of the previously gathered data.
  - Development of mathematical-statistical models for desertion rate prediction using machine learning, deep learning, and mixed approach techniques.
  - Testing and adjustment of the accuracy and stability of the developed models.
  - Periodic readjustment of the model according to the decay ratio of parameters..

### CONACYT, "Large Scale Optimization Problems in Logistics and Supply Networks", support 167019

UANL - Autonomous University of Nuevo Leon

📅 Project duration 📍 July 2018 - December 2019

- **Research assistant:** Design and analysis of model experimentation results, and data visualization of model performance parameters.

### UNIMETA Web Portal

UNIMETA - University Corporation of Meta

📅 Project duration 📍 July 2015 - July 2017

- **Project leader:**
  - Lead project designer and developer, selection of the members of the work teams, and the coordination of graphic design teams, front end design, and back end development.
- **Senior .NET Developer:** Design and development of portal modules and subsystems using ASP.NET, C# & MVC 5.
- **Senior Data Architect:** Design and development of schema and DBMS using MySQL.

## ARTICLES

- *Una propuesta de utilización de las nuevas Tecnologías en los laboratorios de Mecánica de la UNIMETA.* Published on August 30, 2015, Journal Guarracuco - ISSN:1657-4605, ISSN-e:1657-4605e.

- Lagrangian Approach to Modeling Placement Conditions in Optimized Packing Problems. Accepted, Journal Mobile Network and Applications ISSN-e:1572-8153, ISSN: 1383-469X.

## JOB REFERENCES

**Ph.D. Igor Litvinchev**

@ UANL

✉ igorlitvinchev@gmail.com

+52-811 290 0282

**Ph.D. Fernando López**

@ UANL

✉ flopez65@gmail.com

+52-811 268 2780

## REFERENCES

**Ph.D. Fidel Rodriguez Puertas**

@ UNIMETA - University Corporation

✉ fidelrp@gmail.com

+57-314 398 7768

**Ph.D. Daniel Mosquera Artamonov**

@ Everis

✉ xoce15@ingenieros.com

+52-1-812 892 1722

**Ph.D. Yasser Farrés Delgado**

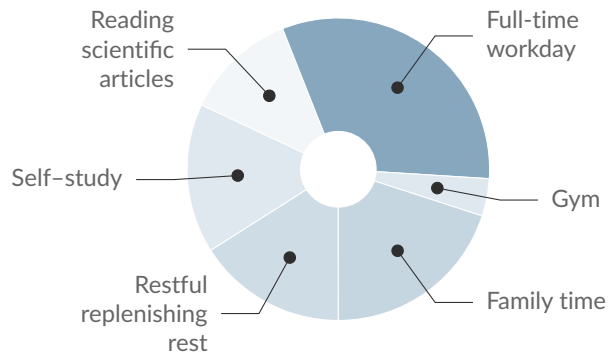
@ Santo Tomas University

✉ yasserfarres@usantotomas.edu.co

+57-318 357 6759

## A DAY IN MY LIFE

---



## COURSES & TRAININGS

---

- Online courses in Coursera:  
<https://github.com/anedesquerra/Certificates/tree/master/Coursera>
  - Online courses in Datacamp:  
<https://github.com/anedesquerra/Certificates/tree/master/Datacamp>
  - Online courses in LinkedIn Learning:  
<https://github.com/anedesquerra/Certificates/tree/master/LinkedIn%20Learning>
  - Online courses in Udemy:  
<https://github.com/anedesquerra/Certificates/tree/master/Udemy>
  - Other online courses:  
<https://github.com/anedesquerra/Certificates/tree/master/Others>
-