

# ANED ESQUERRA ARGUELLES

## DATA SCIENTIST & ANALYST

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## WORK EXPERIENCE

### Senior data scientist & Data engineer

#### THREAD Solutions

📅 July 2018 – August 2020 ⚙ 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 Professor

#### University Corporation of Meta - UNIMETA

📅 February 2014 – July 2018 ⚙ Villavicencio, Meta

- 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

### PhD. de Ingeniería con Orientación en Sistemas

#### UANL - Autonomous University of Nuevo Leon

📅 August 2020 – ⚙ San Nicolas de los Garza, N.L, Mexico

### MSc. in Engineering of Systems

#### UANL - Autonomous University of Nuevo Leon

📅 August 2018 – July 2020 ⚙ San Nicolas de los Garza, N.L, Mexico

### MSc. in Technological Management

#### UDES - University of Santander

📅 May 2018 – October 2020 ⚙ 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 SKILLS

Python programming

R programming

Data scientist

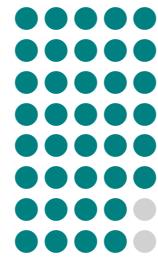
Data engineer

Data analyst

Machine learning

Big data & data mining

Deep Learning



Web design

ASP.NET C# MVC framework

CSS3 & HTML 5.0



mySQL Server developper

SQL Server developper



MS Excel

Google spreadsheets

Power BI

Tableau



## LANGUAGES

English

Spanish

French



# PROJECTS

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

**UNIMETA - University Corporation of Meta**

📅 November 2019 - December 2020 📍 Meta, Colombia

- **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**

📅 November 2019 - December 2020 📍 Meta, Colombia

- **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 ad 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**

📅 July 2018 - December 2019 📍 Nuevo Leon, Mexico

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

UNIMETA Web Portal

**UNIMETA - University Corporation of Meta**

📅 July 2015 - July 2017 📍 Villavicencio, Meta

- **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.

# ACHIEVEMENTS

Junior researcher

**COLCIENCIAS**

📅 2018 Jan. - Ongoing 📍 Colombia

Peer evaluator

**MINCIENCIAS**

📅 2018 Jan. - Ongoing 📍 Colombia

# ARTICLES

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

• Lagrangian Approach to Modeling Placement Conditions in Optimized Packing Problems,  
<https://link.springer.com/article/10.1007%2Fs11036-020-01556-w> Journal Mobile Network and Applications ISSN-e:1572-8153, ISSN: 1383-469X.

# REFERENCES

**Ph.D. Igor Litvinchev**

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**Ph.D. Yasser Farrés Delgado**

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# INTERNATIONAL CONGRESSES

## INFORMS International Conference 2019

### Attendant

📅 2-9, June 2019

📍 Cancun, Mexico

## ESICUP Meeting

### Attendant

📅 ITAM CDMX

📍 8-12, April 2019

## VI CISARS2018

### Organizer & Press committee member

📅 24-25, August 2017

📍 Meta, Colombia

- <http://cisars2018.unimeta.edu.co/pages/contents.aspx?token=FC3FD26E08BA22C4A126010EBB9830D2>

## 2<sup>nd</sup> International Meeting of Science, Technology and Innovation

### Organizer

📅 27-28, October 2017

📍 Meta, Colombia

## CICI 2016 "Uniendo fronteras desde la Orinoquia para el mundo"

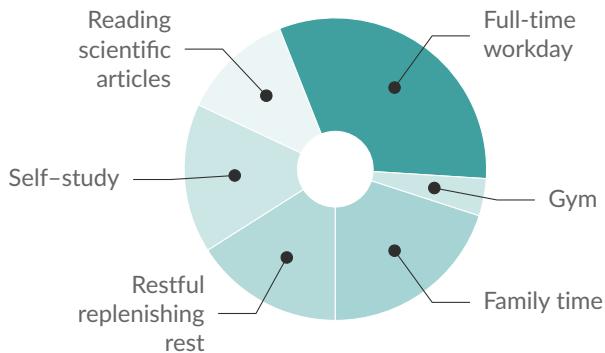
### Exhibitor with poster

📅 19-21n October 2016

📍 Villavicencio, Meta

- [http://cici.unillanos.edu.co/media2016/memorias/CICI\\_2016\\_paper\\_49.pdf](http://cici.unillanos.edu.co/media2016/memorias/CICI_2016_paper_49.pdf)

# 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>