

ANDRÉS URIZA

Data Scientist | Educator

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WORK EXPERIENCE

Data Engineer

Factored

📅 Sep 2021 - Present 📍 Bogotá, Colombia

- Implemented ETL processes to extract data stored in data lakes and relational databases, to feed a dimensional model stored in a data warehouse using AWS and PySpark. Served BI visualization tools over a data warehouse to address business questions.
- Created serverless cloud services and infrastructure as code (IaC) tools.
- Developed an end-to-end automated report generation app using Docker and AWS.

Assitant professor

Universidad Sergio Arboleda

📅 Aug 2019 - Present 📍 Bogotá, Colombia

- Coordinated curriculum and teaching materials for decision-making and operational research class subjects.
- Led a student research group and taught courses in applied analytics and machine learning.

Consulting analyst

TransMilenio S.A.

📅 Apr 2019 - Mar 2020 📍 Bogotá, Colombia

- Proposed and implemented optimization models and machine learning strategies to support decision-making for the technical department of buses.

Instructor – Discrete-event simulation

Universidad de los Andes

📅 Jan 2018 - Jul 2019 📍 Bogotá, Colombia

- Trained students to model and evaluate stochastic systems and derive business recommendations through simulated environments.

Technology & Analytics consultant

World Bank Group

📅 Mar 2018 - Jul 2018 📍 Bogotá, Colombia

- Researched and performed geo-spatial analysis, visualizations and descriptive statistics on the usage and promotion of non-motorized means of transportation.
- Developed a generalized additive model to explain sociodemographic and built-environment differences in bicycle commuting in the City of Bogotá.

Functional analyst

Zettai Consulting - Ajover

📅 Mar 2017 - Jan 2018 📍 Bogotá, Colombia

- Implemented tools and strategies to get data-drive valuable business insights by identifying, analyzing, and interpreting trends and patterns using statistical techniques

Graduate teaching assistant / Lecturer

Universidad de los Andes

📅 Jan 2014 - Dec 2016 📍 Bogotá, Colombia

- Teaching assistant - *Discrete-event Simulation* from Jan to Dec 2016 - *Manufacturing Systems* from Jan 2014 to Jul 2015
- Lecturer - *Mechanical system dynamics* from Jul to Dec 2015

ABOUT ME

data engineer with 6+ years of experience in data science. Helped companies make their data usable for analyzing, modeling, and generating valuable business insights. Experienced in developing ETL processes and creating ML/DL solutions. Knowledge-eager engineer with research experience in computer vision, NLP, and ML with graphs. Highly motivated to tackle challenging architectural and scalability problems for data-intensive applications and effective at working autonomously and in multi-disciplinary teams.

TECHNICAL SKILLS

Python ●●●●●

PyTorch ●●●●●

R ●●●●●

MATLAB ●●●●●

SQL ●●●●●

Deep Learning ●●●●●

Machine Learning ●●●●●

Analytics ●●●●●

ACHIEVEMENTS

📈 **Knowledge Evolution**
Going next level everyday by continuous learning of technical and scientific knowledge

🎓 **DS4A - Colombia Cohort 51**
Selected as one of the 620 over 9000 applicants for advanced education in data science, sponsored by the Colombian government

🎓 **Graduated Teaching Assistance**
Granted as an excellence recognition

🎓 **Quiero Estudiar Scholarship**
Half-tuition scholarship for undergraduate studies

EDUCATION

M.Sc. in Industrial Engineering (CGPA: 4.37 / 5.0)

Universidad de los Andes

Jan 2016 - Dec 2016

Bogotá, Colombia

- **Thesis:** A methodology for option pricing in electricity markets. Case study Colombia
- **Research areas:** Analytics, energy economics, simulation, energy derivatives, statistics

M.Sc. in Mechanical Engineering (CGPA: 4.39 / 5.0)

Universidad de los Andes

Jan 2014 - Jun 2015

Bogotá, Colombia

- **Thesis:** Design and implementation of passive weight compensation for a robotic manipulator
- **Research areas:** Robotics, weight compensation, nonlinear optimization, manipulator kinematics

B.Sc. in Industrial Engineering (CGPA: 4.19 / 5.0)

Universidad de los Andes

Jan 2010 - Dec 2014

Bogotá, Colombia

- **Graduating project:** Formulation and evaluation of a integer optimization model for route design in BRT systems under uncertainty in demand
- **Research areas:** Stochastic optimization, route design problems

B.Sc. in Mechanical Engineering (CGPA: 4.16 / 5.0)

Universidad de los Andes

Jan 2010 - Dec 2013

Bogotá, Colombia

- **Graduating project:** Design and implementation of an exoskeleton for assistance in extension and flexion movements of human elbow
- **Research areas:** Orthosis design, rehabilitation robotics

CERTIFICATES

- **Data Engineering Nanodegree.** Udacity
- **Deep Learning Specialization.** DeepLearning.AI, Coursera
- **DeepLearning.AI TensorFlow Developer Specialization.** DeepLearning.AI, Coursera
- **Natural Language Processing Specialization.** DeepLearning.AI, Coursera
- **AI for Medicine Specialization.** DeepLearning.AI, Coursera
- **Generative Adversarial Networks (GANs) Specialization.** DeepLearning.AI, Coursera
- **Self-Driving Cars Specialization.** University of Toronto, Coursera
- **Advanced Business Analytics Specialization.** University of Colorado Boulder, Coursera (*On course*)

JOURNAL PUBLICATIONS

- Is the built-environment at origin, on route, and at destination associated with bicycle commuting? A gender-informed approach.
Higuera-Mendieta, D., **Uriza, P. A.**, Cabrales, S. A., Medaglia, A. L., Guzman, L. A., Sarmiento, O. L. (2021). In *Journal of Transport Geography*, 94, 103120.
<https://doi.org/10.1016/j.jtrangeo.2021.103120>
- Design of Passive Weight Compensation for a Robotic Manipulator
Uriza, P. A., Rodriguez C.F. (2015). In *Applied Mechanics and Materials*, (Vol. 798, pp. 30-35). Trans Tech Publications Ltd
<https://doi.org/10.4028/www.scientific.net/AMM.798.30>

STRENGTHS






- Quantitative Analysis
- Goal oriented
- Decision Making
- Leadership
- Multidisciplinary Teamwork
- Flexibility and Adaptability
- Communication Skills

LANGUAGES

Spanish
English
Portuguese
German




HOBBIES

-  **Reading papers**
Being updated on trending research topics
-  **Amateur musician**
Playing guitar and singing
-  **Cooking**
Experimenting with new recipes
-  **Travelling**
Always fond of traveling to new places
-  **Community service**
Volunteer teaching kids in vulnerable contexts

REFERENCES


Prof. Carlos Francisco Rodríguez

@ crodrigu@uniandes.edu.co

 Associate professor at the Mechanical Engineering Department, Universidad de los Andes

Daniel Ardila Palomino Palomino

@ daniel.ardilapalomino@sony.com

 Engineer at Perception Systems Group, Sony Europe B.V. Zweigniederlassung Deutschland