



# JUAN ABRIL

## DATA ANALYST, PH.D(C) IN MECHATRONICS

Experienced system integrator with expertise in R&D, advanced electronic system design, and data management. Skilled in automation, electrical drawings, project execution, Robot/PLC programming, and software development. Proficient in robotics, XR, physiology signal capture, and AI analytics. Committed team player with a focus on interdisciplinary healthcare design and ongoing research involvement. Hold a valid US B1/B2 visa.



### CONTACT

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#### Location

Calle 94a-47. Bogotá, Colombia

#### Profile

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### LANGUAGES

English	CI -Certified	90%
Spanish		100%
German		30%



### REFERENCES

#### ENG. ÓSCAR FERNANDO AVILÉS PH.D.

DAVINCI Research Group Leader  
Universidad Militar Nueva Granada

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#### DR. LYNNE V. GAUTHIER

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#### E.S. RUBÉN DARÍO CÁCERES

Electrical Maintenance Engineer  
Kimberly Clark Professional Colombia

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### EDUCATION

#### Instituto Politécnico Nacional (IPN) México

- PhD. Engineering of Robotics and Mechatronics Systems (2023 "cum laude")
- Intelligent system for evaluating the effect of competence during a learning

#### Universidad Militar Nueva Granada Colombia

- MSc. in Mechatronics 1-2018 to 4-2020
- Biosignal features extraction, mechatronic design. Development of a serious VR game physiological signals processing, and for upper limb motor neurorehabilitation.

#### Universidad Militar Nueva Granada

- Bachelor of Mechatronics Engineer 6-2011 to 4-2017
- Emphasis on virtual reality, industrial automation, and robotics



### EXPERIENCE

#### Software Developer

- **Telemetry Assessments on Web Platform Freelance** 12-12-2022 -
- **UCamp Utel (México Remote)** 3-22-2023 to 11-22-2023
- Data Science and AI Specialist , providing guidance on ML, NLP, and various frameworks for e-learning in EdTech. Python, SQL, Full Stack, LLMs, OpenAI, JS.

#### Machine Learning Engineer

- Staff Researcher: Developer of an AI algorithm for the rehabilitation of neurological injuries through biometric analysis. SQL, MATLAB 6-06-22 TO 6-12-22
- Research Staff Member: Evaluation of AI models for stress prediction from physiology and analysis of VR video games. Python, C#, SQL, Java, SolidWorks, MATLAB, LabVIEW, Excel, Docker, Backend, RESTful API, Unity. 7-01-17 TO 2-02-20

#### Industrial Automation Engineer

- **Ingautin COL. Rockwell Automation Integrator:** 12-21-2015 to 6-6-2017
- Projects Engineer: automation, industrial process supervision, electrical control panels, PLC, HDMIS, and network for remote access support.



### ACHIEVEMENTS

#### Publications

1. **Serious Game Design** of VR Balance Rehabilitation with a Record of Psychophysiological Variables and Emotional Assessment (year 2020)
2. Contribution of **virtual environments** to the perception of **balance rehabilitation** tasks: a psychophysiological study (2019).
3. Prototyping interactive multimodal **VR epidural administration** (2019).
4. **Driver assistance system** for people with reduced mobility in upper limb through electromyography signals (2019).
5. Two **DoF robotic platform for balance** rehabilitation tasks (2021).

#### Certifications

**Scholarship** Fully funded PhD (México), and extra-stipend stay in U. Massachusetts Lowell

**Languages** EF Standard English Test (EF SET) EF Standard English Test (EF SET) Issued Aug 2023

**Technology** AWS: Computing, Storage and Database ID 327a523c-ab73-4afc-a3bc-a74387

**Data Analysis** Google Data Analytics Certificate: Issued Jun 2023 Credential ID GEEX6ZSRP8SX

**UX Design** Curso de Lean UX: Issued Apr 2023 ID 2c9f162e-8e34-467a-b3ab-2e33a53b75b6

**Research** Understanding Research Methods: Issued Apr 2023 Credential ID CZ2L2SREVSQE

**Management** Project Management B&M