

# JOSE ALEXANDER RÍOS TRESPALACIOS

## TELECOMMUNICATION ENGINEER



My name is José Alexander Ríos Trespalcacios, ethnically ambiguous, hedonistic and passionate about telecommunications. My academic training and experience are enriched with solid skills in various areas such as Machine learning, supervised learning, data analytics, cluster analysis, python development and other languages.

My knowledge ranges from programming languages like Python (largest used), Matlab, Java (OOP) and C++, to web software development tools like Flask and FastAPI in python, JSF, JSP, Servlets, PrimeFaces, HTML, and React js. My ability to work with automation and control systems (PLC) is complemented by knowledge of AWS, Kubernetes and planning of optical and wireless networks.

I have demonstrated my proficiency in various operating environments such as Linux (Ubuntu, Debian), Windows and MacOS. My prowess in the NetBeans IDE for Java, Tia Portal, and Visual Studio for C#, as well as tools like Microsoft Power BI, GNS3, MATLAB, Cabri, Cisco Packet Tracer, and Node js, reflect my versatility and adaptability in addressing technical challenges.

## PROFESSIONAL EXPERIENCE

August 2023 - Present  
(Medellín, Colombia)

### ACADEMIC MONITOR UNIVERSIDAD DE MEDELLÍN

My primary focus is on phase object recovery using digital holographic microscopy, I spend a considerable amount of time working with digital holographic images and applying image processing techniques to enhance and analyze this data.

Phase Object Recovery with Digital Holographic Microscopy · Image Processing · Signal Processing · Optical Communication · Fiber Optic Networks · Voice and Data Convergence · Engineering · Project Management · Research · Digital Holographic Microscopy · Holograms

## EDUCACIÓN

2016 - 2024  
Medellín, Colombia

### Telecommunication Engineer *Universidad de Medellín*

2015  
Medellín, Colombia

### High School *Institución Educativa Héctor Abad Gómez*

2013  
Cáceres, Colombia

### Basic and High School *Institución Educativa Monseñor Gerardo Patiño*

## CONTACT

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📍 Medellín, Colombia

📅 18 de abril de 1999, Cauca - Antioquia

🌐 [linkedin.com/in/alexander-rios-trespalcacios](https://www.linkedin.com/in/alexander-rios-trespalcacios)

🐙 [github.com/ijrios](https://github.com/ijrios)

🌐 <https://ijrios.github.io/>

## SKILLS

Python	● ● ● ● ●
Machine Learning	● ● ● ● ●
Data Analysis	● ● ● ● ●
Supervised Learning	● ● ● ● ●
Microsoft Power BI	● ● ● ● ●
SQL	● ● ● ● ●
AWS	● ● ● ● ●
Java	● ● ● ● ●

## AWARDS

- **HACKATHON DATA SCIENCE (FIRST PLACE: «CardioVigilant\_AI» - Institución Universitaria Pascual Bravo y Ruta N (2023/09))**

## LANGUAGES

Spanish   
English   
Latín 

## COURSES

2018  
Medellín, Colombia **CISCO CCNA1**  
*Universidad de Medellín*

2019  
Medellín, Colombia **CISCO CCNA2**  
*Universidad de Medellín*

2023  
Medellín, Colombia **MACHINE LEARNING WITH PYTHON**  
*IBM*

2023  
Medellín, Colombia **PYTHON FOR DATA SCIENCE**  
*IBM*

## FEATURED PROJECTS

[github.com/ijrios](https://github.com/ijrios)

**Leukemia Prediction App** - *Data science, Machine learning, Python, Predictive Modeling, HTML, CSS*

**CardioVigilant AI: Your Cardiovascular Health Guardian**  
- *Data science, Machine learning, Python, Predictive Modeling, HTML, CSS*

**IoT Retrofit home automation control system for sliding windows (analog rain, temperature and light sensor) - Arduino and microPython** - *IoT, home automation and electronic (Python and C++)*

**Predict sales and Forum Repraesentativas Exchange Rate Praedictio** - *Data science, Machine learning, Python*

**Sensoriis web - Sensor data management platform** - *RestApi, React js, AWS, Python*

**Bibliopolium\_app : Library (Reviews - Reservations)** - *Java - OOP*

**Systema IoT Retrofit Aquae Intelligentes Tank** - *IoT, home automation and electronic (Python)*

## REFERENCES

### **Jeeny Cuatindioy**

Full-time Professor  
Phone: 300 2503586  
E-mail: [jenny.cuatindioy@udea.edu.co](mailto:jenny.cuatindioy@udea.edu.co)

### **Mario Alberto Luna**

Full-time Professor  
Phone: 3002072673  
E-mail: [mluna@udem.edu.co](mailto:mluna@udem.edu.co)

### **Felix Aviléz**

Lawyer  
Teléfono: 3012944917  
E-mail: [felixavilez17@gmail.com](mailto:felixavilez17@gmail.com)

### **Alexander Ríos**

Professor  
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## INTEREST

- Philosophy
- Statistics
- Literature
- Programming
- Sports